Forty-Sixth Annual Report

of the

State Board of Health

of South Carolina

For the Fiscal Year 1925 to the
Legislature of South Carolina

PRINTED UNDER THE DIRECTION OF THE
JOINT COMMITTEE ON PRINTING
GENERAL ASSEMBLY OF SOUTH CAROLINA

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LETTER OF TRANSMITTAL

March 15, 1926.

Honorable T. G. McLeod, Governor of South Carolina, Columbia, S. C.

Sir: I have the honor to transmit herewith the annual report of the executive committee of the State Board of Health.

No important epidemic occurred during the year except infantile paralysis which prevailed during the summer. Two hundred and one cases were reported, the majority of which were in the counties of Spartanburg, York, Union, Chesterfield and Florence.

Smallpox has developed in Florida in proportions which constitute a warning to neighboring states. Over and over again the lesson has been taught that only by ceaseless vigilance can outbreaks be averted, and that the only means of controlling this disease is vaccination, and yet the state epidemiologist reports that the anti-vaccination law is violated by a large number of school authorities, "all of whom claim exemption from any responsibility for its enforcement." If such indifference and laxity is permitted to continue it will be only a question of time before smallpox assumes serious proportions in South Carolina. The reporting of contagious diseases has become more generally observed by physicians since the adoption last March of the card system and statistics therefore are more accurate, but it is to be regretted that our State is no longer in the registration area for births. This is particularly regrettable on account of the situation with regard to the high infant mortality, and it is to be hoped that physicians will appreciate what this means and make an effort to aid us in securing more accurate records. At present only 81% of births are reported.

It will be noted that the mortality tables indicate an increase in the death rate from pellagra, 408 deaths having occurred during the year. While the cause of this disease is still obscure it is fairly well established that proper nourishment will prevent its development, which indicates the method of control. The number of deaths from diseases of the circulation and from diseases of the Kidneys must excite comment and thought. In the former group 4,207 deaths and in the latter 1,578 are re-

ported. The significance of these figures is apparent when it is noted that deaths from all forms of tuberculosis numbered only 1,318. Diseases of the heart, blood vessels, and kidneys demand most serious attention from the view-point of public health activities. Many of them are preventible.

The work done by Dr. E. A. Early in the dental clinic is deserving of comment. During the year 42,025 children were examined, and 30,708 fillings, cleanings and extractions were reported. This work is bound to exert a far-reaching influence upon the health of the coming generation and merits liberal support.

Our State still holds the unenviable reputation of having more rabies than any other state in the Union. In 1925 there were three deaths from this disease and 1,081 people were treated. Legislation is urgently needed for the adoption of some method of preventing rabies among dogs and other animals. Much has been accomplished in other places, and the present condition should not be allowed to continue.

Attention should be directed to the splendid work being accomplished by Dr. W. A. Boyd in restoring crippled children, and also to the activities of Miss Graham in the department of Child Hygiene, and of Mrs. Cain, Field Secretary of the Tuberculosis Sanitorium. The results achieved in these departments is worthy of the highest commendation.

Respectfully,

ROBERT WILSON, M. D.,
Chairman State Board of Health.

GENERAL REPORT

This is the forty-sixth annual report of the Executive Committee of the State Board of Health, and is for the year ending December 31, 1925.

This report is made in compliance with the Concurrent Resolution, which directs that every officer of the departments of the State Government required by law to make a report to the General Assembly shall contain only concise statements of recommendations and of the transactions of the officer of the department; and that no copy of any report or document, or law, or proposed measure shall be made and printed at the expense of the State except what shall be absolutely necessary for the information of the General Assembly.

EXECUTIVE COMMITTEE STATE BOARD OF HEALTH

Robert Wilson, Jr., M. D., Chairman ..... Charleston
Ben F. Wyman, M. D. ..... Aiken
Davis Furman, M. D. ..... Greenville
E. A. Hines, M. D. ..... Seneca
Wm. R. Wallace, M. D. ..... Chester
William Egleston, M. D. ..... Hartsville
W. M. Lester, M. D. ..... Columbia
S. C. Calder, Ph. G. ..... Greenville
Jno. M. Daniel, Attorney General ..... Columbia
A. J. Beattie, Comptroller General ..... Columbia
James A. Hayne, M. D. .....

Secretary and State Health Officer, Columbia

STAFF OF SOUTH CAROLINA DEPARTMENT OF HEALTH

James A. Hayne, M. D., Executive Officer of State Board of Health.

A. H. Hayden, M. D., Epidemiologist.

A. E. Legare, State Sanitary Engineer, vice E. L. Filby, resigned.

R. G. Hamilton, M. D., Hotel Inspector, vice J. H. Woodward, resigned.

Mrs. James R. Cain, Field Secretary, South Carolina, Sanatorium.
E. W. Grieshaber, Bookkeeper.
W. M. Riser, Secretary to Dr. Hayne.
Porter.

LABORATORY DEPARTMENT

H. M. Smith, M. D., in charge.
James R. Cain, Bacteriologist.
Eugenia McDonald, Technician.
M. C. Davis, Stenographer.
F. L. Parker, M. D., Chemist and Bacteriologist, Charleston.

BUREAU OF VITAL STATISTICS

C. W. Miller, Asst. State Registrar.
Mary Boykin Heyward, File Clerk.
Mary Currell, Stenographer.
Lize Darby, Index Clerk.

MALARIA DEPARTMENT

L. M. Fisher, Director.
R. G. Hamilton, M. D., Malaria Epidemiologist.
William Weston, Malaria Field Agent.
P. G. Hasell, Malaria Field Agent.
Mary Dorn, Stenographer.

Marion County.
F. N. Andrews, M. D., County Health Officer.

Beaufort County.
T. R. Meyer, M. D., County Health Officer.

Georgetown County.
Chas. M. Moore, M. D., County Health Officer.
Miss Louvilla Honaker, R. N., County Nurse.

BUREAU OF CHILD HYGIENE

Miss Ada Taylor Graham, Director.
Miss Fannie O. Winter, Secretary to Director.
Miss Mary McMillan, Secretary to Staff.
Mrs. F. Hill, Statistical Clerk.
Miss Jeanette Hays, District Supervisor.
Miss Nellie C. Cunningham, District Supervisor.

Miss Laura Blackburn, Midwife Supervisor and Field Nurse.
Miss Katherine Malone, Field Nurse.
Miss Emma I. McCune, Field Nurse. (Resigned Nov. 1, 1925).
Miss Rose Herbert, Field Nurse. (On duty Oct. 1, 1925).
Nurse Ellen W. Carter, Colored Field Nurse.

DEPARTMENT COUNTY HEALTH WORK

Dr. L. A. Riser, Director.
E. A. Early, D. D. S., Director Dental Clinics.
Miss F. L. Gary, Secretary.
R. N. Covington, Moving Picture Operator.

Aiken County.
Dr. C. H. Farmer, Health Officer.
Miss Rachel Mayo, Nurse.
M. B. Woodward, Inspector.

Anderson County:
Dr. E. E. Epting, Health Officer.
Mrs. Lois Preach, Nurse.
Brooks Hubbard, Inspector.

Charleston County:
Dr. Leon Banov, Health Officer.
Mrs. Amelia Tanksley, Nurse.
S. S. Welch, Inspector.
Miss May Mood, Secretary.

Cherokee County:
Dr. W. L. Poole, Health Officer
Miss Conya Traynham, Nurse.

Colleton County:
Dr. F. L. Echols, Health Officer.
Miss Edna Anderson, Nurse.

Darlington County:
Dr. A. B. Hooton, Health Officer.
Miss Ada Wham, Nurse.

Dillon County:
Dr. C. C. Freed, Health Officer.
Miss Nell Rohrer, Nurse.

Fairfield County:
Dr. Roderick MacDonald, Health Officer.
Miss Lucile Lowry, Nurse.

Greenville County:
Dr. Baylis Earle, Health Officer.
T. T. Fowler, Inspector.

Greenwood County:
Dr. L. W. Martin, Health Officer.
Miss Bruce Hellams, Nurse.
R. F. Bradley, Inspector.

Newberry County:
Dr. H. G. Callison, Health Officer.
Miss Theresa Lightsey, Nurse.
J. R. Wise, Inspector.

Orangeburg County:
Dr. G. C. Bolin, Health Officer.
Miss Sadie Kendall, Nurse.
Miss Rose Van Geyt, Nurse.

Spartanburg County:
Dr. R. G. Beachley, Health Officer.
Miss Louwilla Honaker, Nurse.
E. T. Ammons, Inspector.

SOUTH CAROLINA SANITORIUM

Ernest Cooper, M. D., Superintendent.
J. C. Bonner, M. D., Assistant Physician.
Mrs. Estelle Cooper, Matron.
Carrie Spivey, R. N.
Pearl Leitzey, R. N.
Pupil Nurses.
Servants.

PALMETTO SANITORIUM

Horneithea Witherspoon, Housekeeper.
Rebecca Belton, Nurse.
Mary White, Nurse.
Servants.

THE BOARD'S QUARTERS

The Executive Department of the State Board of Health, the Bureau of Child Hygiene, Malaria Control Department, and

the Department of County Health Work occupy rooms on the second floor of the Palmetto Building.

The Laboratory remains in well arranged rooms furnished by the University of South Carolina, in LeConte College.

The Bureau of Vital Statistics is at the University of South Carolina in LeConte College.

The South Carolina Sanitorium for the treatment of Tuberculosis at State Park, eight miles from Columbia.

E. R. Squibb & Sons of New York furnish the State reliable diphtheria antitoxin and vaccine virus.

MISCELLANEOUS

Four regular meetings and one call meeting were held by the Executive Committee of the State Board of Health during the year 1925. Dr. Davis Furman of Greenville, was elected by the Executive Committee to fill the position of Dr. C. C. Gambrell, deceased and Dr. Ben F. Wyman of Aiken, was elected to fill the position of Dr. Robert A. Marsh, deceased.

According to our usual custom, each department is required to furnish a detailed report of its activities during the year. These reports will be found in this volume. Each report shows that the respective department has worked faithfully to carry out that portion of the health work allotted to it. It was found best to designate one of these deparments a department of sanitary engineering instead of that of malaria control, as there were many new duties added to the sanitary engineer during the past year. Mr. A. E. Legare was elected State sanitary engineer to take the place of Mr. E. L. Filby, resigned. Capt. L. M. Fisher, of the U. S. Public Health Service, loaned to us by the Federal Government and who receives no salary from the State, is in charge of this department as Acting State Sanitary Engineer in charge of the Department of Sanitary Engineering. His report shows that in addition to continuing the work of draining areas where malaria was prevalent and educational work to teach the people the cause and prevention of malaria, there has been carried out by this department two major activities this year, First, the reporting of communicable diseases. This was started on March 1st, and has been very successful in obtaining reports from the physicians of the State. This is extremely necessary so that the health department may be made aware of diseases

originating in various parts of the State so that the foci of infection may be sought out and steps taken to prevent the spread of communicable diseases in other portions of the State. However, only about 60% of the doctors of the State make the required reports. A careful study of that part of Capt. Fisher's report entitled "Collection of Morbidity Reports" will show how thoroughly has been the report of communicable diseases during the year 1925. A total of 58,287 communicable diseases have been reported for the ten months beginning March 1st. This reporting of communicable diseases has also had great educational value to the people of the State as the weekly stories carried by the newspapers have stimulated public interest in the health welfare of the State. It is proposed to carry on this work this year with the addition of several diseases that are not now listed on the cards. These cards are franked by the Federal Government and the expense of sending them out consists only in the cost of printing the cards and the clerical labor, the latter of which is carried out by the force already supplied to this department.

The Inspection of Oyster Beds and Oyster Shucking Plants, a very important duty, was added to the Board of Health by the Legislature last year to be done in cooperation with the Board of Fisheries of South Carolina. Owing to the fact that an epidemic of typhoid fever occurred in Chicago, which was traced by the U. S Public Health Service to oysters obtained from polluted beds, the attention of the whole country was drawn to the danger of typhoid fever being spread by oysters, and the Federal Government through the U. S. Public Health Service, adopted a plan requiring certification by the State Health departments of all oysters in Inter-State shipments. This certification will only be accepted after the oyster beds have been carefully inspected, the oysters and the water in which the oysters grow being tested. The shucking houses where the raw oysters are taken out of the shells and placed in containers for shipment also must have rigid inspection before such certification can be made. This work has been carried out to the best ability of the Board, but owing to the fact that no boat was provided and the oysters have to be taken from the beds and the water samples tested, the work has been slow. It is hoped, however, that this Legislature will provide a suitable boat for these operations to be properly carried out and that the oyster industry, which is growing rapidly in South Carolina, may not be caused

to cease operation. It is estimated that about $75,000 worth of raw oysters are shipped from this State annually, and that a large sum, amounting to about $1,200,000.00, is spent on wages and the operation of the fishing industry in this State. In order to carry out this work, Mr. Summerville was appointed as technician for the laboratory and his work was largely done on the oyster boat. We hope in the year 1926 to chart all oyster beds from which oysters are obtained along the South Carolina coast and to specify from what beds oysters may be taken, not allowing oysters to be taken from beds which have been found to be polluted by sewage. This will be of great advantage to the people of South Carolina as they will know that the oysters purchased in this State have been properly inspected as this law applies to all states from which oysters are shipped.

A great deal of work has been done this year by this department in advising cities and towns in regard to proper water supplies and proper sewage disposal. There is a constant demand for expert advise from all over South Carolina, which we are able with our present personnel, to promptly supply.

We regret to report that, owing to the carelessness of physicians and midwives in not reporting births, this State, after two careful examinations made by the Department of the Census of the Federal Government during the past year has been found to have only 81% of births reported. As the requirements of the Census Bureau is 90%, we were dropped from the registration area of the United States in regard to births. This was a serious matter and one which has given us a great deal of concern because our reports are no longer official and until we get back into the registration area it will be impossible to show that we are reducing our infant mortality, which at the time of our being dropped from the registration area, was the highest of any State in the United States. We are doing all in our power to rectify this matter and have called upon physicians to report their births. The president of the South Carolina Medical Association has visited some twenty or thirty county medical societies in the State and urged upon them the necessity of such reporting. It is hoped that our efforts will bear fruit and that we may be re-admitted to the registration area during the coming year.

The death rate for South Carolina for 1925 shows a less death rate than in 1924, being 12.2 against 12.9; whites 9.5,

colored 14.9. Birth rate, 25.3, which is a little less than 1924 which was 25.8.

The number of Typhoid Fever cases is slightly less than last year but is still extremely high and our efforts to abate the same will be continued during the coming year, principally by typhoid inoculation and the teaching of people that human fecal matter not properly disposed of is a menace to the health of the community.

Diseases of circulation and diseases of the kidney continue to increase the death rate.

Automobile accidents were 154 this year as against 120 in 1924. This is extremely serious when one considers that the death rate from this cause alone is greater than that from many of our communicable diseases combined.

There were the same number of legal executions in the State (two) and there were 220 homicides during the year, as compared with 153 the year before. This is an appalling statement—that there were 12.4 per 100,000 of population deaths from homicides during the year 1925. Suicides increased from 45 to 50, and there were 30 people killed by lightning against 14 the year before. There were 22 people died of alcoholism as compared with 14 the year before. This would seem to indicate that either there was more drinking in 1925 than in 1924 or else that the quality of the whiskey used was worse.

Only one epidemic of importance occurred in the State during the year and that was Poliomyelitis. A full report of the same occurs elsewhere in this volume. There were a total number of 201 cases which occurred in 36 counties, the county having the largest number being Spartanburg with 26 cases, York with 20 cases, Union 15 cases, Chesterfield 11 cases and Florence 11 cases. This means that there will be 201 crippled children in South Carolina to be cared for through the crippled children's department.

A study of the statistics furnished by the Bureau of Vital Statistics, which is furnished elsewhere in this volume, will bring out facts of great importance.

The department of Rural Sanitation gives a most excellent resume' of the work of that department during the past year. There were sixteen counties in the State that had whole time county health departments. This is over half the population of South Carolina and the work done can be seen from this re-

port to have been thorough and painstaking. Dr. L. A. Riser, who has been in charge of this department for the past fourteen years, has contributed much toward the improvement of health conditions in South Carolina. His work has always been most painstaking and he has been able to secure the local cooperation of those employed in this department. It is hoped that before many years every county in South Carolina will be able to have a whole time county health department. However, it is thought that in some of the smaller counties it would be better to combine two or three counties, forming a health district, each county contributing toward the upkeep of the county health department. Thus one doctor could take charge of two or three counties. This plan has been pursued in many states very successfully.

Under the department of Rural Sanitation is the work of the Dental Clinics. A comprehensive report by Dr. E. A. Early, who has charge of these activities of work done shows that 42,025 children were examined during the year and that 30,706 fillings, cleanings and extractions were done. The total amount of free work done amounted to $3,082.00; the amount collected was $12,271.00. We believe that this work will not stop until every county sees to it that the children's teeth are properly attended to, oral hygiene having been demonstrated to be of extreme value, particularly to children in the public schools, as their health has improved and their general standing in their classes and promotion to higher grades has been hastened by proper attention to their teeth. Thus great saving will be made in the cost of the education of the school child.

The Hygienic Laboratory, one of the most valuable adjuncts of public health in South Carolina, again submits a most remarkable report of work done during the past year. When it is considered that the personnel of this laboratory consists only of a doctor in charge, a bacteriologist, a technician and a clerk, it will be seen that an enormous amount of work has been done by this department. There were a total of 4,034 tests made for typhoid fever, 4,034 tests made for para-typhoid and a total number of tests of 14,442 for all communicable diseases, with 18,057 Wassermann tests, making a grand total of 42,493. The laboratory also distributed during the year 151,408 cubic centimeters of typhoid—paratyphoid bacterin. In addition, there were 1,081 people treated for rabies, the rabies treatment being

manufactured by this laboratory and sent out to the physicians of the State for use. This report also shows the distribution of rabies in South Carolina. Again Greenville leads with 168 people, Spartanburg next with 118, and York third with 81. Every county in the State had some person treated that had been bitten by a rabid animal during the past year, and there were three deaths from rabies. Two of these patients, one a colored boy from Marion County, the other a colored boy from Florence County, did not take antirabic treatment, and the third patient although taking the treatment died before immunity could be established.

It is again urged upon the Legislature that some steps must be taken to prevent this disease in South Carolina among animals, for when one considers that twenty-one treatments have to be given to each of these 1,081 people, and the discomfort, anxiety and financial loss which this occasions in the State, one would think that this matter certainly deserved the attention of the Legislature, for in addition to human beings bitten by rabid animals, the loss of mules, cows and other domestic animals is great. South Carolina holds the unenviable reputation of having more rabies than any other state in the Union, in fact has about twice as much as any other State. Rabies can be controlled by the quarantine of dogs that have been bitten, also the prevention of importation into the State until the incubation period has passed of any dogs, and the muzzling and inoculation of dogs in the State. This, of course, is an expensive program, but something of the sort must be carried out or we will have an increase of rabies from year to year. Each year shows an increase and there seems to be no let-up in the amount of rabies in South Carolina.

The report of the Bureau of Child Hygiene shows an increase over previous years in the amount of work done, and the fact that our infant mortality rate shows a reduction in 1925 of 91.8 as against 105.7 in 1925 is due, we believe, to the intensive work done in instructing midwives, in holding well-baby clinics, and in the general educational work which has been done throughout the State. Miss Graham's report is comprehensive and indicates the large amount of work done by this department.

This department is supported in part by the Sheppard-Towner funds from the Federal Government. As this Act only covers a period to July 1, 1927, the work will soon devolve entirely upon the State and it is hoped that by that time it will have so

demonstrated the necessity of this work that ample funds will be available from the State of South Carolina for its continuance.

Careful inspections have been made of penal and charitable institutions of the State and reports submitted by the committees are included in this volume. It is noted that the recommendations contained in last year's reports have been for the most part carried out and promises are made that these recommendations will be carried out in full during the year.

The report of South Carolina and Palmetto Sanatoria shows that up to December 1st, 170 patients have been treated, 64 men and 106 women. It also shows that great economy has been the watch word at this institution. In spite of the drought the products of the farm amounted to $11,909.45.

The necessity of a children's building was urged upon your Body at its last session and $25,000 was provided, which has been expended in the partial completion of this building. When completed it will take care of 50 children. This was a most necessary addition to the Sanatorium as there are many tuberculous children in South Carolina and there is no place where they can be treated.

Dr. Cooper's report is clear and comprehensive, and its perusal will show that South Carolina is doing all that can possibly be done with the money available to take care of these unfortunate people.

The report of Mrs. I. L. Cain, Field Secretary, shows that she has done everything that could be done to help the condition of the patients at the Sanatorium, and has worked unceasingly for the benefit of these patients. She has traveled throughout the State and has succeeded in arousing the interest of many organizations in tuberculosis work, especially the South Carolina Federation of Women's Clubs and the State Council of Farm Women.

She has made 22 talks along educational lines and attended many conferences. Her work is extremely well done and is a necessary adjunct toward the tuberculosis work.

We wish to call the attention of the Legislature to the fact that owing to crowded conditions in Florida that smallpox is a menace now to this State, smallpox having broken out there and negroes from this State and others who have gone to Florida have returned and spread smallpox throughout South Carolina.

The laws regarding vaccination and quarantine against smallpox are being better obeyed but are still neglected in many parts of the State. Trustees and schools sometimes refuse to carry out the laws of the General Assembly requiring school children to be vaccinated; however, we are getting better cooperation than we did in the past and we believe we will soon be able to say that a majority of the schools of the State strictly enforce this very necessary law.

Dr. W. A. Boyd, State Orthopedic Surgeon, is doing wonderful work in restoring the crippled children of the State to useful citizenship. It is hoped that in the near future an orphopedic hospital may be erected so that this work may be better carried out. An appropriation is asked for, and it is hoped that funds will be provided so that this great work may continue.

Mr. J. H. Woodward, our Inspector of Hotels and Restaurants, resigned August 1st, and his work has been carried on very efficiently by Dr. R. G. Hamilton. A report of the hotel inspection is shown. Since the inception of this work the traveling public all testify to the great improvement in hotels and restaurants in South Carolina. As the cost of this work is borne by the hotels and restaurants, and as the work is extremely necessary if sanitary hotels and restaurants are to continue in South Carolina, we urge that this department be continued by your Honorable Body.

The work of the State Epidemiologist, Dr. A. H. Hayden, as his report will show, has covered the State and he has had many requests for his services to abate nuisances and prevent the spread of epidemics. His detailed report appended shows that nearly every day in the year he has been engaged in answering the calls made upon him.

Dr. F. L. Parker, our Chemist and Bacteriologist, has made his usual quarterly examinations of water sources of the State, and in addition has been called in consultation where certain water sources have been contaminated. His work is of great value to the State.

The executive work of the State Board of Health as carried out in the office of the State Health Officer has been efficiently done and the various departments have had their work correlated. The bookkeeping and correspondence of this office require the most careful and painstaking work on the part of the clerk and secretary. There is a large correspondence and all the accounts

are kept in this office. The State Health Officer has visited many parts of the State and has also attended the meetings of various health and medical organizations of which he is a member.

In conclusion, South Carolina has a most efficient system of health conservation and should be proud of the fact that health officers from one northern and one western state have been sent here in order to familiarize themselves with this department so that they might improve the work in their respective states.

DIPHTHERIA ANTITOXIN DISTRIBUTORS

Abbeville County

Abbeville	McMurray Drug Co.
Donalds	Johnson Drug Co.
Due West	J. M. Plat Co.

Aiken County

Aiken	Hall's Pharmacy, W. J. Platt & Co.
Graniteville	E. E. Platt, W. C. R. Turnbull
Lake View	Smith's Drug Store
Langley	Langley Drug Co.
North Augusta	W. E. Mealing, M. D.
Salley	Jones Pharmacy
Wagener	Wagener Drug Co.

Allendale County

Allendale	Farmers Drug Co.

Anderson County

Belton	Frierson's Pharmacy, Horton's Pharmacy
Anderson	Bigby's Pharmacy, Peoples Pharmacy, Evans Pharmacy.
Honea Path	Bolt Drug Co.
Iva	Iva Drug Co.
Pelzer	W. W. Griffith
Pendelton	E. G. Evans & Sons
Williamston	Guyton Drug Co.

Bamberg County

Bamberg	Mack's Drug Store
Denmark	Peoples Pharmacy
Ehrhardt	Peoples Drug Co.
Olar	R. & H. Drug Store

Barnwell County

Barnwell	Mace & Deason Drug Co.
Blackville	Epps Pharmacy
Fairfax	City Drug Store
Williston	J. M. Smith & Son

Beaufort County

Beaufort	C. G. Luther

Berkeley County

Moncks Corner	Moncks Corner Pharmacy
St. Stephen	T. J. Boykin

Calhoun County

St. Matthews	Fair's Pharmacy
Fort Motte	J. A. Woodley, M. D.

CHARLESTON COUNTY

Charleston .....Roper Hospital, G. W Aimar & Co., Frierson Drug Co., Zeigler's Pharmacy.
Mt. Pleasant .....H. L. Wacker

CHEROKEE COUNTY

Blacksburg .....Iron City Pharmacy
Gaffney .....Gaffney Drug Co.

CHESTER COUNTY

Chester .....Standard Pharmacy, Chester Drug Co.
Great Falls .....Republic Pharmacy

CHESTERFIELD COUNTY

Cheraw .....T. E. Wannamaker & Son
Chesterfield .....D. H. Laney
Jefferson .....Kenningston's Pharmacy
McBee .....Corner Drug Co.
Pageland .....Kenningston's Pharmacy
Ruby .....Ruby Drug Co., ...Kennington's Pharmacy

CLARENDON COUNTY

Manning .....Dickson's Drug Store
Paxville .....Thomas W. Gunter
Summerton .....Palmetto Drug Co., Summerton Drug Co.
New Zion .....E. B. Gamble, M. D.

COLLETON COUNTY

Walterboro .....John M. Kline, Walterboro Drug Co.

DARLINGTON COUNTY

Darlington .....Hill's Drug Store, McFall's Drug Store
Lamar .....Palmetto Drug Co.
Hartsville .....Corner Drug Co., Boyd-Powe Drug Co.

DILLON COUNTY

Dillon .....Evans Pharmacy, Moody Drug Co.
Latta .....Peoples Drug Co.
Page's Mill .....Smith's Pharmacy

DORCHESTER COUNTY

St. George .....P. M. Judy
Summerville .....Tupper Pharmacy Co.

EDGEFIELD COUNTY

Edgefield .....C. A. Bird
Johnston .....Peoples Drug Co.

FAIRFIELD COUNTY

Ridgeway ..... Ridgeway Pharmacy
Winnsboro ..... J. H. McMaster & Co.

FLORENCE COUNTY

Florence ..... F. U. Lake Drug Co.
Lake City ..... Lake City Drug Co., W. S. Lynch
Timmonsville ..... Marvin Drug Co., Cole Drug Co.
Pamplico ..... Peoples Drug Store
Olanta ..... Farmers & Merchants Drug Co.

GEORGETOWN COUNTY

Georgetown..... Atlantic Coast Lumber Corp., Iseman Drug Co.
Andrews ..... Thompson's Drug Co.

GREENVILLE COUNTY

Fountain Inn ..... Redick's Pharmacy
Greenville..... Bolt Drug Co., Armstrong Pharmacy, Carpener Bros., L. H. Strainger, Reynolds & Earle.
Greer ..... The Greer Drug Co., Corner Drug Co.
Piedmont ..... Suber Drug Co.
Simpsonville ..... Simpsonville Drug Co.

GREENWOOD COUNTY

Greenwood ..... Greenwood Drug Co.
Ninety-Six ..... Holmes Pharmacy
Ware Shoals ..... Ware Shoals Mfg. Co., (Drug Dep't)
Troy ..... Troy Drug Store

HAMPTON COUNTY

Estill ..... Estill Pharmacy
Hampton ..... Chas. A. Rush

HORRY COUNTY

Conway.... Platts Pharmacy, Horry Drug Co., Conway Drug Co.
Loris ..... Loris Pharmacy

JASPER COUNTY

KERSHAW COUNTY

Bethune ..... Bethune Drug Co.
Camden ..... W. R. Zemp
Kershaw ..... Heyes & Gregory

LANCASTER COUNTY

Heath Springs.... Timmons Drug Co., Heath Springs Pharmacy, W. T. Stover & Sons.
Heath Springs ..... Timmons Drug Co.
Kershaw ..... Heyes & Gregory
Lancaster ..... Standard Drug Store

LAURENS COUNTY

Clinton ..... Kellers Drug Store
Gray Court ..... Gray Court Drug Store
Laurens.... Laurens Drug Co., Powe Drug Store, Putnam's Drug Store.
Cross Hill ..... Cross Hill Pharmacy, J. H. Miller, M. D.

LEE COUNTY

Bishopville ..... Law's Drug Store

LEXINGTON COUNTY

Batesburg ..... Ridgell Drug Co.
Leesville ..... Able Drug Co.
Lexington.... Riley Drug Co., Palace Drug Co., Harmon Drug Co.
Pelion ..... D. R. Kneece
Swansea ..... Johnson's Pharmacy
New Brookland ..... Whetsell's Drug Store

MCCORMICK COUNTY

McCormick ..... Clark-Lott Drug Co.

MARION COUNTY

Marion ..... J. S. Davis
Mullins ..... Palace Drug Co., Kirby's Pharmacy
Nichols ..... Nichols Pharmacy

MARLBORO COUNTY

Bennettsville ..... Douglass & Breeden
Clio ..... Clio Drug Co.
McColl ..... Moore Drug Co.

NEWBERRY COUNTY

Little Mountain ..... J. C. Sease
Newberry..... Newberry Drug Co., Gilder & Weeks, Mayes Drug Store.
Prosperity ..... Prosperity Drug Co.
Whitmire ..... Whitmire Drug Co.

OCONEE COUNTY

Clemson College ..... L. C. Martin
Fair Play ..... W. C. Mayes
Walhalla ..... Peoples Pharmacy, Bell's Drug Store
Westminster ..... Frierson's Drug Store, Crystal Drug Co.

ORANGEBURG COUNTY

Branchville ..... Oliver Drug Co., Pipkin Pharmacy
Elloree ..... P. L. Felder
North ..... Peoples Drug Co.
Orangeburg ..... Lowman Drug Co., Wannamaker Drug Co.
Springfield ..... Edisto Drug Co.
Neeses ..... Williams Drug Store

PICKENS COUNTY

Central ..... Carolina Drug Co.
Easley ..... Friersons Drug Store, Palmetto Pharmacy
Liberty ..... Hunters Pharmacy
Pickens ..... Pickens Drug Co.

RICHLAND COUNTY

Columbia..... Blanding Street Drug Store, McGregor's Drug Store, Taylor Drug Co., Wingfield Pharmacy.
Columbia Hospital.... Heinitish's Drug Store, Waverly Drug Co.
Blythewood ..... M. Langford

SALUDA COUNTY

Ridge Spring ..... Ridge Drug Co.
Saluda ..... Pitts Drug Co., Saluda Drug Co.

SPARTANBURG COUNTY

Converse ..... Peoples Drug Co.
Cowpens ..... Cowpens Drug Co.
Inman ..... Inman Drug Co.
Landrum ..... Landrum Drug Co.
Pacolet ..... Pacolet Mfg. Co.
Spartanburg.... Arthur Irwin, Ligon's Drug Store, Henry's Drug Store, Todd Drug Co., Copes Drug Store.
Woodruff ..... Workman & Stemson, O. E. Westmoreland
Greer ..... Greer Drug Co.
Clifton ..... Taylor Drug Co.

SUMTER COUNTY

Mayesville ..... The Peoples Pharmacy
Sumter..... Sibert's Drug Store, Mitchell's Drug Store, McElveen Drug Co.

UNION COUNTY

Jonesville ..... Jonesville Drug Co.
Union..... Palmetto Pharmacy, People's Drug Store, City Pharmacy

WILLIAMSBURG COUNTY

Johnsonville ..... Johnsonville Drug Co.
Kingstree ..... Kingstree Drug Co.

YORK COUNTY

Clover ..... Clover Drug Co.
Fort Mill ..... Lytles Drug Co.
Rock Hill ..... Rock Hill Drug Co.
Sharon ..... Sims Drug Co.
York ..... York Drug Co.
Hickory Grove ..... Hood Drug Co.

THE FOLLOWING TABLE BY COUNTIES SHOWS THE NUMBER OF CASES DIAGNOSED AS DIPHTHERIA RECEIVING ANTITOXIN

1925	January	February	March	April	May	June	July	August	September	October	November	December	Total
Abbeville	....	3	6	7	1	2	3	2	1	9	9	4	47
Aiken	7	6	6	....	2	....	....	23	5	....	7	....	56
Allendale	....	....	....	....	3	....	1	1	7	....	6	2	20
Anderson	7	3	19	....	4	9	36	13	2	8	15	16	132
Bamberg	....	....	13	....	....	....	....	....	....	....	1	....	14
Barnwell	....	....	1	6	....	1	....	....	1	1	8	10	28
Beaufort	3	10	5	....	....	1	1	3	....	2	5	4	34
Berkeley	....	....	1	....	....	....	....	....	3	....	....	....	4
Calhoun	....	....	....	1	....	....	....	2	2	....	1	....	6
Charleston	4	16	17	3	7	4	12	7	6	11	27	20	134
Cherokee	1	4	4	1	9	....	....	....	4	11	12	2	48
Chester	....	....	....	....	3	....	....	19	20	8	5	....	55
Chesterfield	11	4	5	25	47	....	....	14	30	4	15	9	164
Clarendon	3	2	....	1	....	9	....	....	....	....	1	10	26
Colleton	1	1	2	....	....	....	3	1	12	2	5	5	32
Darlington	....	14	4	4	....	....	....	....	4	....	10	....	36
Dillon	16	....	9	6	....	7	2	....	18	15	5	8	86
Dorchester	1	1	....	6	5	2	....	....	....	....	....	1	16
Edgefield	....	....	....	1	....	....	....	....	4	....	....	1	6
Fairfield	....	....	3	1	....	....	1	....	2	7	....	2	16
Florence	....	5	7	....	1	7	8	9	23	....	3	2	65
Georgetown	....	....	2	....	....	....	2	1	1	....	....	....	6
Greenville	7	21	15	1	....	7	8	2	42	16	31	24	174
Greenwood	....	8	3	1	5	5	1	5	10	5	5	11	59
Hampton	....	....	1	....	1	1	....	....	....	....	6	....	9
Horry	....	12	13	5	....	....	....	8	11	....	9	....	58
Jasper	....	4	1	....	....	6	....	....	....	....	....	....	11
Kershaw	....	6	6	10	4	13	2	22	33	1	28	19	144
Lancaster	....	4	11	....	....	....	....	....	....	....	16	10	41
Laurens	....	11	7	1	....	1	3	....	1	3	1	....	28
Lee	....	....	....	....	....	....	....	....	....	31	....	....	31
Lexington	2	4	1	5	....	5	1	2	3	....	12	16	51
McCormick	....	....	2	....	....	....	....	....	....	1	....	....	3
Marion	1	3	....	....	5	....	3	....	12	10	5	10	49
Marlboro	....	1	10	....	1	....	2	3	4	2	2	2	27
Newberry	....	....	3	6	....	1	....	4	13	4	20	10	61
Oconee	2	3	2	1	3	....	....	1	8	1	6	3	30
Orangeburg	2	7	15	....	1	....	4	12	6	8	18	7	80
Pickens	....	12	11	....	....	....	....	7	10	7	7	4	58
Richland	3	51	1	7	5	7	4	11	16	3	26	12	146
Saluda	1	1	....	2	4	3	4	1	1	6	1	5	29
Spartanburg	25	9	6	40	6	8	5	35	38	34	28	36	270
Sumter	3	2	21	3	2	1	1	5	14	5	6	6	69
Union	....	....	12	....	....	....	2	5	7	10	8	10	54
Williamsburg	....	....	....	....	....	11	3	....	10	7	5	7	43
York	....	7	9	2	....	4	8	3	6	10	8	....	57
Total	100	235	254	146	119	115	120	221	390	242	383	288	2613

MINUTES

March 27, 1925.

A call meeting of the Executive Committee of the State Board of Health was held in the office of the Secretary, 204 Palmetto Building, Columbia, S. C., March 27, 1925, at 10 o'clock, with the following members present: Dr. Wm. Egleston, Dr. W. M. Lester, Dr. E. A. Hines, Dr. W. R. Wallace, Dr. S. S. Calder and the Secretary. Dr. W. M. Lester was elected Vice-Chairman and presided at the meeting in the absence of Dr. Wilson.

A committee, consisting of Drs. Calder, Wilson and Wallace, was appointed to draw up suitable resolutions on the death of Dr. Gambrell.

The Secretary announced two vacancies on the Committee caused by the death of Dr. Robert A. Marsh and Dr. C. C. Gambrell. Dr. Davis Furman, of Greenville, S. C., was nominated from the Fourth District to fill the unexpired term of Dr. Gambrell, and was unanimously elected. It was moved by Dr. Hines that the election of a successor to Dr. Marsh be deferred to the April meeting.

Dr. Egleston moved that Mrs. Cain be authorized to purchase furniture for the Nurses' home.

Dr. J. C. Bonner appeared before the Board ond requested that he be allowed to occupy rooms in the administration building. The Board regretted its inability to comply with Dr. Bonner's request as the central administration building must be set aside as a Nurses' home.

The resignation of Mr. E. L. Filby, State Sanitary Engineer, was read and Mr. Filby was asked to appear before the Board. He stated that he had accepted a position in Florida as Chief Sanitary Engineer for that State. The Board then formally accepted Mr. Filby's resignation and expressed regret at his leaving.

The report of the sub-Committee, consisting of Dr. Egleston and Dr. Hayne, known as the Building Committee, was made as follows:

"A meeting of the sub-Committee, consisting of Dr. Wm. Egleston and Dr. James A. Hayne, of the Executive Committee of the State Board of Health on building of the Infirmary and Superintendent's Home, was held in the office of the Secretary on Thursday, March 12, 1925, at 1 o'clock.

"Bill for extras for the Infirmary, as per attached copy, was presented and after discussing the same with Mr. Lee, the contractor, Mr. Wilson, the architect being out of the City, the following resolution was adopted, and it was directed that a copy of this resolution be sent to Mr. Wilson, the architect, and to Mr. Lee, the contractor.

"Resolved, That the contract for the Woman's Infirmary having been let by this Committee for the fixed amount of $29,728.85, and the contract for the residence of the Medical Director for the fixed amount of $6,600.00, and no authorization having been given by this Committee for any extras on either building, the Committee regrets its inability under the authority vested in it either to approve the several claims for extras or to recommend the payment thereof."

The report was approved, and it was moved and seconded that the Building Committee be authorized to endeavor to arrange so that Mr. Lee, the contractor, may not suffer financial loss in this matter.

There being no further business, the Board adjourned to meet in Spartanburg with the South Carolina Medical Association on April 21, 1925.

JAMES A. HAYNE, M. D.,
Secretary.

Attest:

April 21, 1925.

The regular Annual Meeting of the State Board of Health with the South Carolina Medical Association was held in Spartanburg, S. C., April 21, 1925, with the following members present: Dr. Robert Wilson, Chairman, Dr. E. A. Hines, Dr. Wm. Egleston, Dr. Davis Furman, Dr. S. C. Calder, Dr. W. R. Wallace, Dr. W. M. Lester, and the Secretary.

Minutes of the last meeting were read and approved.

The question of the election of a State Sanitary Engineer to take the place of Mr. E. L. Filby, resigned, whose resignation was to take effect May 15th, came up and it was decided not to elect any one at that time but to hold the election at the next regular meeting. In the meantime, the State Health Officer was instructed to endeavor to have the U. S. Public Health Service allow Capt. L. M. Fisher to act with the State Board of Health in the organization of a Department of Sanitary Engineering.

Dr. Ben F. Wyman, of Aiken, S. C., was unanimously elected to fill the vacancy in the Second District caused by the death of Dr. Robt. A. Marsh.

The Board then went into executive session for the election of officers for the ensuing year. The following were elected: Dr. Robert Wilson, Chairman, Dr. James A. Hayne, Secretary.

There being no further business, the Board adjourned to meet at the call of the Chairman.

JAMES A. HAYNE,
Secretary.

June 9, 1925.

The regular quarterly meeting of the Executive Committee of the State Board of Health was held in the office of the Secretary at 10 o'clock on the morning of Tuesday, June 9, 1925, with the following members present: Dr. Robert Wilson, Chairman, Dr. Davis Furman, Dr. Wm. Egleston, Dr. Ben F. Wyman, Dr. W. M. Lester, Dr. W. R. Wallace, Dr. S. C. Calder and the Secretary. Dr. E. A. Hines wired his regret at being unable to be present.

The Minutes of the previous meeting were read and approved.

Reports were read from the department of Malaria Control, Bureau of Child Hygiene, Bureau of Vital Statistics, Hygienic Laboratory, Rural Sanitation, and South Carolina Sanatorium.

The sub-Committee, known as the Building Committee of the Children's Unit, South Carolina Sanatorium, consisting of Drs. Egleston and Hayne, submitted their report on the Women's Infirmary and the Nurses' Home. This report was read and approved.

Messrs. C. C. Wilson and J. N. Lee, contractors, were present and presented their claims for money due them on the women's Infirmary and the Nurses' Home. After both Mr. Wilson and Mr. Lee had presented their arguments for the payment of this money, the resolution of the sub-Committee, which is as follows, was again adopted by a full voting of the Board:

> "Resolved, That the contract for the Women's Infirmary having been let by this Committee for the fixed amount of $29,728.85, and the contract for the residence of the Medical Director for the fixed amount of $6,600.00, and no authorization having been given by this Committee for any extras

on either building, the Committee regrets its inability, under the authority vested in it, either to approve the several claims for extras or to recommend the payment thereof."

A letter was read from Dr. Cooper in regard to the site of the Children's building. After due discussion it was moved that the matter of the site be left to the Building Committee, with authority to act.

There being a vacancy in the office of the State Sanitary Engineer, an election was held. The applicants for this position were Mr. Fred C. Wyse, Mr. W. H. Weir and Mr. A. E. Legare, and a ballot resulted in the election of Mr. Legare to fill the position made vacant by the resignation of Mr. E. L. Filby.

The new members of the Board, Dr. Davis Furman and Dr. Ben F. Wyman, were welcomed to the Board.

There being no further business, the meeting adjourned to meet at the call of the Chairman.

JAMES A. HAYNE, M. D.,
Secretary.

Columbia, S. C.,
October 8, 1925.

The Executive Committee of the State Board of Health met on Thursday, Octobed 8, 1925, with the following members present: Dr. Davis Furman, Dr. W. M. Lester, Dr. Wm. Egleston, Dr. E. A. Hines, Dr. S. C. Calder, Dr. W. R. Wallace and the Secretary. Dr. Robert Wilson and Dr. Ben F. Wyman were unable to be present.

The Minutes of the last meeting were read and approved.

Full reports were read from the Malaria Control department, Bureau of Child Hygiene, Vital Statistics, Hygienic Laboratory, Rural Sanitation and the Field Secretary of S. C. Sanatorium.

Under the report of special agents the Sanitary Engineer reported the following proposed regulations pertaining to water supplies, which were adopted and ordered promulgated:

"1. On and after November 1, 1925, no new water supply system shall be installed in the State of South Carolina unless plans for such installation, and the proposed sources of supply shall first have been approved by the State Board of Health upon the recommendation of the division of Sanitary Engineering.

"2. No additional source of supply shall be added to an existing public water supply system unless the plans for such additional installation and the proposed additional supply shall have first been approved by the State Board of Health.

"3. A public water supply system shall include every water works installation supplying ten or more houses or supplying water to the public generally from one or more houses."

Also, regulations regarding the handling of shellfish were read, approved, and ordered promulgated, as follows:

"1. Oysters or clams which are taken from waters found upon inspection by the State Department of Health to be polluted as to render the oysters taken therefrom or placed therein dangerous to health shall not be distributed or sold for use as food within the State of South Carolina.

"2. The floating, laying out or storing of oysters intended for use as food will not be permitted in water of a less salt content than that in which oysters will naturally grow to maturity.

"3. Oysters will not be permitted to remain on floats longer than twenty-four hours during the first fifteen days of September; nor more than thirty-six hours from September 15th to November 1st. During the other shipping months oysters will not be allowed to remain on floats longer than forty-eight hours, except by permission of the State Department of Health. Oysters will frequently cleanse themselves in one tide and therefore the offering for sale as food, oysters that bear evidence of over-floating or soaking is prohibited.

"4. Oysters that have been subjected to the floating process shall not be permitted to remain in scows, on wharfs or in shipping houses before shipment longer than forty-eight hours except in cold weather and then only if they are properly protected from freezing.

"5. All floats, scows, or other vessels, used for transportation of oysters or clams, shall at all times be kept clean and free from mud, refuse, or any decaying matter.

"6. Boats used for collecting shell oysters must be so constructed that the oysters can not come in contact with the bilge water, and they must be thoroughly cleaned daily while being used for this purpose.

"7. Oysters that have been subjected to the floating process when shipped must have the sacks, barrels or other containers so marked that the purchaser may know that they have been floated. This marking shall be in the following words: 'This package contains Floated Oysters' and the type shall occupy a space of at least three-fourths of an inch in height. The marking must be so stamped or printed in the tags that it can be easily discernible. No sacks that have been used for the trans-shipment of oysters shall be used again for that purpose until they have been thoroughly cleaned and sterilized. Wooden barrels or other containers must be clean and free from anything that might contaminate the oysters.

"8. The practice of allowing oysters that have been dredged from the planting grounds to remain on the decks of schooners for a considerable time before sale results in their deterioration as a food product; therefore oysters shall not be carried on the decks of vessels after dredging longer than twenty-four hours in September, forty-eight hours in October and November.

"9. Railroad cars in which oysters are shipped in sacks must be clean and free from anything that might endanger the purity or healthfulness of the product. All cars shall be subjected to proper inspection to see that they conform to this rule.

"10. Oysters that are shucked may be washed in clean water before shipping and must be placed for shipment in containers in which ice shall be used; but the ice or the water therefrom must not be allowed to come in direct contact with the oysters.

"11. Oysters or clams intended for sale as food must not be kept or stored in any place or places which may in any way affect their purity or wholesomeness.

"12. Oyster and clam shippers will be required to keep their boats, wharves and shipping houses in a clean and sanitary condition at all times.

"13. Owners of all vessels in which men work continuously for more than two hours and which are engaged in the handling of oysters or clams from the planting grounds or in the vicinity of floats upon which oysters are or may be laid out, must provide their vessels with suitable receptacles in which the excreta, both solids and liquids of persons using such boats shall be received, and the contents of such receptacles shall be disposed of either by incineration or by burial in the ground at points sufficiently removed from the banks of streams to prevent pollution of the waters thereof.

"14. Oysters or clams that have remained in storage until the product has become weakened will be regarded as unfit for food and cannot be shipped."

REGULATIONS GOVERNING THE HANDLING OF SHELLFISH

1. Oysters or clams which are taken from waters found upon inspection by the State Department of Health to be polluted as to render the oysters taken therefrom or placed therein dangerous to health shall not be distributed or sold for use as food within the State of South Carolina.

2. The floating, laying out or storing of oysters intended for use as food will not be permitted in water of a less salt content than that in which oysters will naturally grow to maturity.

3. Oysters that have been subjected to the floating process shall not be permitted to remain in scows, on wharves or in shipping houses before shipment longer than forty-eight hours except in cold weather and then only if they are properly protected from freezing.

4. All floats, scows, or other vessels, used for transportation of oysters, or clams, shall at all times be kept clean and free from mud, refuse, or any decaying matter.

5. Boats used for collecting shell oysters must be so constructed that the oysters cannot come in contact with the bilge water, and they must be thoroughly cleaned daily while being used for this purpose.

6. Oysters that have been subjected to the floating process when shipped must have the sacks, barrels or other containers so marked that the purchaser may know that they have been floated. This marking shall be in the following words: "This package contains (number) Floated Oysters" and the type shall occupy a space of at least three-fourths of an inch in height. The marking must be so constructed or printed on the tags that it can be easily discernible. No sacks that have been used for the trans-shipment of oysters shall be used again for that purpose until they have been thoroughly cleaned and sterilized. Wooden barrels or other containers must be clean and free from anything that might contaminate the oysters.

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8. Railroad cars in which oysters are shipped in sacks must be clean and free from anything that might endanger the purity or healthfulness of the product. All cars shall be subjected to proper inspection to see that they conform to this rule.

9. Oysters that are shucked may be washed in clean water before shipping and must be placed for shipment in containers in which ice shall be used, but the ice or the water therefrom must not be allowed to come in direct contact with the oysters.

10. Oysters or clams intended for sale as food must not be kept or stored in any place or places which may in any way affect their purity or wholesomeness.

11. Oyster and clam shippers will be required to keep their boats, wharves and shipping houses in a clean and sanitary condition at all times.

12. Owners of all vessels in which men work continuously for more than two hours and which are engaged in the handling of oysters or clams from the planting grounds or in the vicinity of floats upon which oysters are or may be laid out, must provide their vessels with suitable receptacles in which the excreta, both solids and liquids, of persons using such boats shall be received, and the contents of such receptacles shall be disposed of either by incineration or by burial in the ground at points sufficiently removed from the banks of streams to prevent pollution of the waters thereof.

13. Oysters or clams that have remained in storage until the product has become weakened will be regarded as unfit for food and cannot be shipped.

RULES AND REGULATIONS GOVERNING THE OPERATION OF OYSTER SHUCKING HOUSES

1. (a) No person, firm or corporation shall operate or conduct an establishment for the shucking of oysters within this State until he, or they, shall have secured from the Department of Health of the State of South Carolina a license to operate such an establishment.

(b) Application for such license shall be made in writing by the person, firm or corporation, submitting the application. All licenses shall be posted in a conspicuous place in the shucking plant, and shall expire June 30 following the date of issuance and must be renewed yearly.

2. Only oysters which are alive, with tight shells, shall be used for shucking.

3. Every building or room used as a shucking house shall be constructed and equipped as hereinafter provided and the operations carried on in such building or rooms shall be conducted in such manner that the purity and wholesomeness of the shellfish handled therein shall not be impaired.

4. All rooms in which shucked oysters are packed, stored, washed or otherwise handled shall be separate and apart from the rooms in which oysters are opened.

5. Rooms in which oysters are shucked and in which shucked oysters are packed shall be provided with smooth, water-tight floors which can be readily cleansed, and such floors must be cleansed daily. The side walls of such rooms shall be constructed of smooth, hard material. Side walls and ceilings shall be kept in a clean condition at all times. Waste material must not be permitted to accumulate in room where shucked oysters are packed. Spitting upon the floors of oyster houses is strictly forbidden.

6. All shucking houses shall be adequately lighted and ventilated, and shall be provided with an abundant supply of hot and cold water. During the fly season all windows and doors shall be provided with screens.

7. All shucking houses located in oyster grounds from which the taking of oysters is not prohibited must be provided with adequate drainage to lead all waste liquids outside the building and into a suitable sewer, cesspool, or tank, or to some other point where they can be disposed of without creating a nuisance. Waste liquids must not be disposed of by emptying into any stream in which shellfish are grown or floated.

8. Shucking benches constructed of smooth, hard material which can be readily cleansed must be provided, and such benches shall be kept in a clean condition.

9. All utensils and containers in which shucked oysters are placed must be of metal and of such construction as to enable them to be readily cleansed. No apparatus with which the shucked oyster comes in contact can be of wood. They must be thoroughly cleansed and then scalded out with hot water or steam before beginning each day's work. Knives used by shuckers must be subjected to the same treatment.

10. Shucked oysters may be washed with clean unpolluted water. This washing must be of such a thorough nature that dirt and filth introduced by the openers or during subsequent handling shall be effectively removed. If a blower or any form of mechanical agitator is used to wash the oysters, it must be kept clean. The sediment must be removed after each blowing and a fresh supply of water used for each blow. The period of blowing shall not be over three minutes, unless salt solution is used. The strength of the solution should range between 1% and 2%, depending upon the salinity of the water in which the oysters are grown. After shucked oysters have been washed and are ready for final packing and shipping they shall not be touched by hand. Clean rubber gloves may be used.

11.* A solid pack shall be required when shucked unfloated oysters are sold by measure. For the purpose of this rule a solid pack will be understood to mean oysters which have been drained substantially of all their adhering liquor.

12. All receptacles which contain shucked oysters, floated prior to shipment, must be labelled as to contents with readily legible letters at least three-quarters of an inch in height: e. g. This package contains (number) floated oysters.

13. Shucked oysters offered for shipment must be packed in closed containers and thoroughly iced. Oysters must not be packed in contact with ice.

14. Oysters must be shipped the same day they are opened unless stored at a temperature 45 degrees F. or below, or packed in shipping containers and thoroughly iced.

15. Shucked oysters when shipped must be delivered in clean sanitary containers. Returnable containers must be cleansed by the use of scalding hot water at a temperature of at least 200 degrees F., or by live steam, for sufficient time to thoroughly cleanse the container and sterilize it. If the container is of such shape or construction as to preclude effective cleansing and sterilization only non-returnable containers will be allowed. Wooden oyster containers are prohibited.

16. All containers in which shucked oysters have been shipped to an oyster packer, or distributor, must be washed clean by the packer or distributor immediately after emptying and before returning to the shipper.

17. Waste materials must not be permitted to accumulate in rooms where shucked oysters are packed and such materials must be removed daily.

18. All shucking houses shall be provided with running water, soap, and clean towels to enable employees to wash their hands. Employees shall be required to wash their hands before beginning work and after visiting the toilet. Ample toilet facilities must be provided and must meet with the approval of the State Board of Health. Toilets must be kept clean at all times.

19. The outer clothing worn by persons engaged in shucking oysters shall be of material which can be readily cleansed and only clean garments shall be worn. Rubber aprons and rubber sleeves are recommended.

20. No persons with infectious wounds in the hands or arms shall be permitted to open oysters or handle the same.

21. (a) All persons engaged in opening, packing or handling shucked oysters must secure a certificate from the Department of Health of the State of South Carolina showing that bacteriological examination of specimens of urine and feces from the respective persons were negative for typhoid bacilli. Certificates must be renewed each year and after an illness of typhoid fever or suspected typhoid fever.

(b) This certificate must be carried by the recipient at all times and shown upon request.

(c) The necessary containers for urine and feces specimens will be furnished by the Department, and laboratory examinations made free of charge.

(d) The management of such establishments is held responsible that employees secure certificates.

22. No person afflicted with any communicable disease shall be employed in any shucking house nor shall any person so affected be permitted to enter the rooms of such shucking house where oysters are opened, packed or otherwise handled.

23. No person shall be allowed to live or sleep in any room where oysters are shucked or packed.

*All water that comes in contact with the shucked oysters must be drawn direct from the pipe. No dipping, from tubs or other receptacles, or water that is to come in contact with the shucked oysters, is allowed.

Clean rubber gloves may be used while removing pieces of shells and such like material from the first strainer.

After considerable discussion of the methods for the improvement of births resignation the following resolution was proposed by Dr. Egleston, and carried: "Moved, That the State Health Officer draft a request to the cotton mill presidents to assist in the registration of births in the mill villages in every way that they can."

Dr. E. A. Hines spoke about periodic health examinations as a function of the State Board of Health, and it was moved and seconded that the State Board of Health send the "Manual of Suggestions for the Conduct of Periodic Examinations of Apparently Healthy Persons" to all medical men of South Carolina. Also, that the State Board of Health endorse the publications of the American Medical Association's "Hygeia" and endeavor to have as many subscriptions as possible made to the same.

The following resolution regarding the death of Dr. H. R. Carter was passed:

"The Executive Committee of the South Carolina State Board of Health having heard with great sorrow of the death of Dr. H. R. Carter, who for many years past has rendered, in association with this Board, most valuable service to the State of South Carolina in matters of malarial control and public health work,

"*Resolved*, That we record our grief at his death, our great appreciation of his valuable services, and our warm affection for his lovable personality."

A letter was read from Mr. C. C. Wilson, architect, asking that the attention of the Board be called to the extensive requirements for ventilation of school buildings and that new regulations be drawn that would be less drastic. This matter was referred to the Committee on Code.

It was moved and seconded that the name of the Director of Dental Clinics be changed to Director of Mouth Hygiene.

There being no further business, the Board adjourned to meet at the call of the Chairman.

JAMES A. HAYNE, M. D.,
Secretary.

Attest:

Columbia, S. C.,

Dec. 18, 1925.

The regular quarterly meeting of the Executive Committee of the State Board of Health was held in the office of the Secretary, 204 Palmetto Building, Columbia, S. C., at 10 o'clock on the morning of Friday, December 18th, 1925 with the following members present: Dr. Robert Wilson, Chairman, Dr. E. A. Hines, Dr. W. M. Lester, Dr. Wm. Egleston, Dr. Davis Furman, Dr. Ben F. Wyman, Dr. S. C. Calder, and the Secretary.

Minutes of the last meeting were read and approved.

Reports were read from the following departments: Bureau of Child Hygiene, Rural Sanitation, Malaria Control, S. C. Sanatoria, Laboratory and Vital Statistics.

Reports were also read from the Committee on the Sanitary Inspection of State Penal and Charitable Institutions as follows: State Reformatory for Negro Boys, S. C. Industrial

School for Girls, State Reformatory for Boys at Florence, S. C., State Penitentiary, State Hospital for the Insane, State Training School for the Feebleminded at Clinton, S. C., and the Confederate Soldiers' Home.

Reports were read from the Committee on the Sanitary Inspection of State Educational Institutions as follows: Clemson College, Winthrop College, The Citadel, University of S. C., S. C. Medical College, De La Howe near Williston, Institution, A. & M. College at Orangeburg and Cedar Springs Institute for the Deaf and Blind.

Mr. Andrew Clarkson, Attorney at Law, appeared before the Board in regard to the claim of Mr. Lee, contractor, and the following resolution in regard thereto was adopted:

> "Resolved, That the Secretary be allowed to state before any Committee of the South Carolina Legislature that the extra work claimed to have been done by Mr. Lee was done and is in daily use and service, and that the buildings are just that much better for this work. However, any statement made by the Secretary for the Board must be preceded by the reading to the Committee of the action of the Building Committee on this matter and its subsequent confirmation by the full Board of Health at a regular meeting."

The Board directed that the Secretary extend to the heads of the different departments congratulations on the good work done during the past year.

There being no further business the Board adjourned to meet at the call of the Chairman.

JAMES A. HAYNE, M. D.,
Secretary.

Attest:

REPORT OF COMMITTEE ON SANITARY INSPECTION OF STATE EDUCATIONAL, PENAL AND CHARITABLE INSTITUTIONS

To the State Board of Health, South Carolina:

Gentlemen: Your Committee on the inspection of State Educational Institutions begs leave to remit its report as follows:

Your Committee inspected Winthrop College and found things in excellent condition on the whole. However, the screening of

the dormitories has not been done. There is much complaint about it on the part of the parents of the students and the Legislature should be urged to make provision for this purpose. Some minor matters of sanitation were taken up with the President and they have received his attention.

We also inspected Clemson College and found conditions very good, particularly as to dining room and kitchen and pantry. The dormitories are only partially screened and the Legislature should be urged to make appropriation for this purpose. The screening at the hotel is in poor condition. There was much complaint of flies at Clemson College and it was suggested to the authorities that all stables on the campus proper be done away with. It was also suggested that all the old wells at Clemson College be condemned and filled up or made impossible for use as they are an element of danger. There were minor matters of sanitation which were taken up with the authorities who promised to correct them at the earliest possible moment.

The State Medical College was inspected by the members of your Committee and was found in excellent sanitary condition.

The Citadel was inspected in much detail by your Committee. Everything at the Citadel is in first class condition except in two particulars. The kitchen and pantry are not at all adequate nor in keeping with the general conditions prevailing at the institution. There should be a larger kitchen and better pantry facilities provided at once. The screening around the kitchen and pantry is not satisfactory and there is one water closet close to the pantry and kitchen for the use of the servants which should de done away with. The Citadel is still unscreened as regards its barracks and class rooms, and while it would probably cost a good deal of money to screen this institution, it is none the less a fact that the law of South Carolina requires the screening of institutions of this sort and the cost is by no means prohibitive. The Hospital facilities are most excellent.

The Cedar Springs Institute was inspected under our direction by Dr. Hayden. He finds this institution in good condition, many improvements having been made during the past year which tend to improve the sanitary conditions. The needs of this institution are an ice and cold storage plant and an increase in the milk supply. This increase in the milk supply can only be managed by an increase in the dairy herd and it is suggested that cooperation with Clemson College might accomplish this without

any great additional expense. At the negro building it is strongly recommended that a water closet which has been condemned for several years past be put in sanitary condition. It is futher called to the attention of the Legislature that there is no fire protection at this institute and that steps be taken to provide this, both for the care of the buildings and for the care of the inmates.

Your Committee inspected the University of South Carolina and found these recommendations to make: That the hospital be enlarged and that a wing be added for contagious diseases; that, if possible, in the erection of further buildings for the accommodation of women students, that hospital space for these students be provided separate from the general hospital space now used.

The De La Howe Training School was inspected by Dr. Hayden. It is recommended that the attention of the Legislature be called to the inadequate fire protection at this place and that steps be taken to increase the same. It is urged that a proper dairy barn be erected at this place and that there be a further increase in the dairy herd so that adequate milk may be supplied for the children. It is also urged that a refrigerating plant be constructed for this institution.

Inspection of the A. & M. College at Orangeburg was made by the Committee. The general conditions were excellent though they call attention to the fact that the dormitories there are not screened and that no money has been provided for same. It is recommended that a new horse barn be provided; that a new cow barn be also provided, and that both be moved further from the buildings and dormitories.

These are synopses of suggestions as to the improvements of sanitary conditions at the various State educational institutions. However, the reports of Dr. Hayden and Mr. Legare are quite full and cover every phase of sanitation and hygiene at these institutions, and a good deal more besides. Copies of these detail inspections should go to the Presidents of each of these institutions as they will give the President and Board of Directors of the several institutions a very detailed and clear perspective of what should be done to bring the sanitary conditions up to a desired point.

WM. EGLESTON,
S. C. CALDER,
W. M. LESTER,
DAVIS FURMAN.

SANITARY INSPECTION OF A. & M. COLLEGE, ORANGEBURG, SOUTH CAROLINA

By A. H. Hayden, M. D.

To the Committee on the Sanitary Inspection of State Educational Institutions:

Gentlemen: I inspected this institution September 30, 1925 and beg to report as follows:

The present enrollment, the school having just opened, is 563. The President informs me that the prospective enrollment will be about 900, male and female students being about equally divided.

Everything about this college was in excellent order, as is usual; the executive building attractive in appearance, giving evidence of cleanliness and general good order.

Screens. As you are aware, the law requires that all educational institutions shall be screened throughout. This institution, like many others, including the great college of Winthrop, is entirely without screens and, as I understand, the General Assembly has positively refused so far to make appropriations for this purpose. If possible, the General Assembly's attention should be called to this law of their own making, and be urged that proper appropriation be made for this and other institutions, without which it will be impossible to give heed or obedience to this law.

Training School for Nurses. This building, an attractive brick building, was constructed in 1924-5, is well equipped and contains four rooms besides office and industrial rooms. The building is about 100 feet long by 35 feet in width.

Dormitories. As reported last year, this college is in need of two capacious dormitories, one for boys and one for girls. The dormitories now are very much crowded and many pupils have been turned away for lack of space for their accommodation. Before the opening of school this year the boys' dormitory was thoroughly repainted and re-calcimined throughout.

Dining Room, Pantry and Kitchen. These are kept in excellent sanitary condition and are attractive in every way. In the kitchen and pantry there are several new labor saving machines which were put in during the past year. In the new

equipment are included refrigerators, meat cutters, dish washing machine, new range, etc.

Horse Barn. Is more delapidated than ever and beyond repair. A new one is badly needed. Attention was called to this need last year but so far nothing has been done in the matter of building a new one.

Milk Barn. Clean and O. K. in every respect.

Milk Room. In excellent sanitary condition and in every way well cared for.

A Cow Barn is very much needed. It is hoped that this building will be torn down and a new one built at a considerably greater distance than it is now from all buildings on the college grounds. This old barn stands now near enough to all the buildings on the grounds to cause considerable annoyance, is quite insanitary and quite a fly-breeding place and a nuisance generally.

Laundry. This has been recently newly equipped at a cost of about $2,000. This, of course, is a great improvement, but the college is very much in need of a Home Economics building, which, when built, will give better accommodations, laundry, sewing room and other apartments for industrial training. Even with the improvements recently made, this work is very much cramped and while it is able to be conducted more satisfactorily than in the past, it is still not enjoying the advantages that it should in the way of floor space and conveniences.

Teachers' Building. Such a building is badly needed at this institution. This need should be supplied as early as possible as the present building is a phantom only. As I said in my report last year, this need is "forcibly brought to one's attention when he inspects the dormitories for both boys and girls and realizes, on actual observation, the tremendous amount of room that is taken up in these domitories for teachers, notwithstanding the fact that there is not nearly enough room in the present dormitories for the accommodation of students."

Fire Protection. As reported last year, is excellent in every particular, fire escapes being plentiful, as are also extinguishers, hose, etc., for immediate use in case fire should break out in the dormitories.

Barber Shop. In excellent condition.

"Y." Building. Need of such a building was emphasized in my last year's report. It is very gratifying to report, relative to this need, the very unusual fact that without aid of any kind from the State, a very handsome brick building for this purpose is now in process of construction, the building measuring 67 feet x 36 feet, 1½ stories high, which will be occupied by the Y. M. C. A. The entire cost of this building is met by the girls of the institution with money earned by themselves and donations which they have secured for the purpose. It will be steam heated throughout and modern in every respect.

White Hall. A building devoted to class rooms and recitations and contains also a very commodious and attractive auditorium in which Chapel services and other exercises are conducted. Is in excellent condition. The building, however, will not be large enough to meet the college requirement even if there is a small increase in the student body within the next few years. The college, in fact, has already outgrown it, and if possible some provision should be made for larger accommodations for the purpose for which White Hall is now used.

Respectfully submitted,

A. H. HAYDEN, M. D.,
Epidemiologist, State Board of Health.

This year an added feature for the education of the students is that they are now given health lectures and also a course in physiology, anatomy and hygiene. Lectures are also delivered to the student body by a dentist of the City of Orangeburg and it has been determined by the President that this year all students will be required to undergo physical examination by a competent physician.

SANITARY INSPECTION OF DE LA HOWE TRAINING SCHOOL, WILLINGTON, S. C.

By A. H. Hayden, M. D.

To the Committee on Sanitary Inspection of State Educational Institutions:

Gentlemen: My sanitary inspection of De La Howe Training School at Willington, S. C., was made this year much earlier than usual, being made in September 25th. It is noted that there

is no increase in the number of scholars at this institution since last year.

Boys' College. At present includes both buildings at the site of the original buildings, which constitute all that the college possessed until the administrative building was constructed some years ago. One of these buildings, which was formely the girls' building, has been supplied with a tin roof in lieu of the old shingle roof of years past, which tin roof in the recent fire probably saved the State many thousands of dollars in preventing the spread of this recent fire from building to building, which, had it occurred, would probably have destroyed all of the buildings on the south of the old original college grounds, including the residence of the Superintendent. This building has not received all of the necessary repairs which were noted as badly needed last year, nor has the calsimining of the building been done. The building standing next to the Superintendent's residence, which was occupied by laundry, sewing room and pumping plant, was burned August 31st, entailing a loss of about $3500.00 with insurance of $2500.00.

Fire Protection. It was noted last year that "considerably more precautions against fire had been taken" since the year before at this institution, fire extinguishers having been placed in every building on the grounds and fire hose also placed in the main building. This fire protection, however, is by no means equal or adequate for the needs of protection in case another fire should occur at this institution. It is therefore advisable that the matter of fire protection receive considerable consideration and an edequate fire protection, if possible, be provided during the coming year. It is impossible to say positively what caused this fire, but it is possible that there was an overflow to a slight degree from the gasoline tank which was supposed to have been ignited by sparks from the exhaust of an old and antique gasoline engine that had been in use over twenty years and which fortunately now is no more.

Electric Light Plant, Laundry and Pumping Station. These, of course, are now at the old buildings necessarily out of commission since the buildings that housed them were burned. These buildings since this fire have been compelled to resort to kerosene lamps for lighting which, of course, increases the fire hazard. As soon as the main building, which will later be referred to,

is completed it will include the new power plant of the institution and is located near the administration building, about one-half mile or more from the old buildings at the original site of the college, they will again be supplied with electric lights, until which time the lighting will have to be continued by the use of kerosene lamps above referred to. Laundrying is now done out of doors, that is, so far as the washing is concerned.

Barn Yard. I would for the third time call attention to the very urgent need of a proper barn for the care of cattle owned by this institution, which is practically no barn at all and is at present, as it has been for some years past, absolutely no shelter whatever to the cattle and is really a disgrace and a menace and hazard to the life, not only of the stock that may be under such a pretense for a shelter, but the children who work twice or thrice daily therein giving the necessary attention to the dairy herd. If it is within a possibility for our General Assembly to supply this institution with properly constructed dairy barns and furnish them with money to buy additional cows, which are absolutely necessary for the supply of an adequate amount of milk for these children, it would be the only and very happy solution of a question that has disturbed the minds of the managers and friends of this institution for years past. The management has secured during the past year a very fine young bull, purchased from Clemson College, which now heads the herd and which will vastly improve this herd within a short time to come. Until that time arrives it is really imperative that at least about half a dozen cows are given this institution if the physical condition of the young children is attempted to be kept up to the normal standard.

Girls' College. As was noted under the caption "Boys' College", this old building has now been turned over for use of the boys of the institution, all girls occupying quarters in the administrative building some distance off on the site of the new college.

Dining Room. In the old building has been entirely abandoned for use as such, the service of all meals and the entire cooking for the inmates of this institution being done in the new stone structure known as the administrative building, because of the necessity of the elimination of the kitchen and pantry in the old Girls' College.

Sewing Room, which once was a portion of the building burned, now occupies a space in the old Girls' College, as does also the ironing room. As I have noted, the laundry, or washing, is done outside a roof.

Mule Yard. As was noted last year, the old mule barn, which stood opposite the buildings on the old site and which was moved quite a distance away and rebuilt and improved in many ways, has during the past year been still further repaired and improved by having a tin roof placed upon it.

Administration Building. This attractive stone edifice standing on the new site is at present having a very necessary addition built thereto in a construction now in process on the southeast wing matching that on the northwest, which will increase the rooming capacity for the inmates to nearly double. All of the girls of this institution now room in this administration building and, as previously stated, all students of the institution take their meals in the dining room connected with the same. Everything in this building was in a cleanly, attractive condition, including bath rooms and bed rooms, which indicated that the very best care possible is bestowed upon them.

Dining Room, *Kitchen*, *Pantry*, *etc.*, in the usual excellent condition. Improvements suggested last year as necessary to give adequate protection from flies, etc., have been made. On the whole, these departments are well appointed and well cared for.

Under the caption of "Urgent Needs" last year attention was called to three very urgent and necessary conditions in the departments of this institution, viz., an infirmary or small hospital for the sick children, a dairy barn, and a refrigerating plant. In my previous report I referred especially to the dairy barn. It is now urged that this institution be at the earliest possible moment supplied with a building which shall be properly equipped for the care of the sick, there being at present no provisions of this kind made at this institution. A refrigerating plant similar to the one supplied to Cedar Springs last year and which was comparatively inexpensive, is much to be desired and it is hoped will be supplied for the institution during the coming year. Request for these immediate conditions for the building, etc., of De La Howe institute has been repeatedly called to your attention and urged to be supplied for several

years past. As before stated, a refrigerating plant would materially reduce the cost of ice and foodstuffs if the former could be made on the grounds and the latter properly stored in a cold storage room in connection with a refrigerating plant. In the basement of the additional wing now being built for the administration building the cost of constructing quarters for the installation of a refrigerating plant and cold storage room would be absolutely nothing as they have under this wing ample space to construct the same in the cellar, all material for building being supplied on the ground, free of cost to the State, and all labor for constructing also being supplied as it is being done by students of the institution. The total cost would therefore be the machinery for putting into use the process of refrigerating and the necessary small equipment for storing edibles. Two very noted improvements have been added to the institution in the past year, the first of which is the saw mill, which is entirely new throughout, which has recently been bought and is now sawing all lumber used for construction from timber growing on the property of the institution.

Technical School Building. Now in process of construction, is a handsome, new stone building near the administration building, known as the Technical School Building, in which will be housed wood shop and iron work shop, and industrial training of students, new laundry, storing room, printing office, pumping and generating outfit, and feed cutting and mill grinding departments. This building will be 130 feet in length by 70 feet in width, the rear portion of the building being two stores and containing four large rooms.

The management of this institution is to be congratulated on the management of the same and the accomplishment of so much in the way of improvements on so small an amount of appropriation made for the same.

Respectfully,

A. H. HAYDEN, M. D.,
Epidemiologist, State Board of Health.

SANITARY INSPECTION OF UNIVERSITY OF SOUTH CAROLINA

By A. H. Hayden, M. D.

To the Committee on the Sanitary Inspection of State Educational Institutions:

Gentlemen: At the time of my inspection of this institution the registration was 1228, with an anticipated enrollment of 1400 students. This is the largest registration in the history of the University.

I would again call attention to the building known as the President's residence. As has been noted for the past two years in my report, this delapidated building has been and still is in use by various departments of the college—students' publication department, extension department, alumni association room, office of matriculation, etc. During the past year this building, for the first time, was satisfactorily heated, heat being conducted through the building from the general heating plant of the college, but the building is still in deplorable condition throughout and unfit for the use to which it is devoted. It should be torn down and a suitable administration for the college erected, there being no such building on the University campus.

Notwithstanding the fact that an administration building is urgently needed, the Men's Cafeteria has during the past year been very much improved by the addition of modern equipment and is occupying a larger space than heretofore.

Infirmary. For the past one or two years attention has been called to the fact that the Infirmary is entirely inadequate for the need of an educational institution the size of the University. No provision has yet been made for its improvement or enlargement. It is still, as in the past, in need of a store room, there being no provision in this room, nor space, to keep supplies. The institution is capably managed by its matron and, as usual, in A-1 condition relative to cleanliness, attractiveness, etc. Half of the ward space in the building which formerly was devoted to the use of male students has since it became a co-educational institution been obliged to be given up for the accommodation of female students. To be brief, the University is in need of a new and much larger building, equipped throughout as an up to date modern hospital, containing, as well as the ordinary wards,

a separate and distinct wing for the handling of contagious diseases should they ever be present in the student body, the happening of which is likely to occur at any moment.

Boarding Houses. These boarding places outside of the University grounds I am advised by the President will hereafter be listed and sanitary inspections made of them by physicians once a month with, of course, permission of the keepers of these boarding places. Should refusal be met of these requested inspections, I am advised that the students will not be allowed longer to board or take their meals therein, this being an adequate precaution taken by the officers of the University as a protection to the health of the student body.

Chapel. .Again this year is to be repeated in connection with this provision for the student body, what has been noted in my reports for several years past. Its present capacity for chapel purposes is 470, and it is easily recognized that with a student body of 1200 to 1400 scarcely more than one-third of the students can be accommodated there for chapel services, necessitating that the other two-thirds of the student body must necessarily be excused from attending chapel services for want of space for accommodating them. It is easily understood, therefore, that if, at all educational institutions, attendance on chapel services are made compulsory for the student body, a duty owed this student body which should not be denied them, is the construction, as was emphasized last year, of a modern church building, with a capacity to meet the large increase of the student body —the large increase which this student body will undoubtedly have within the next few years. The present small chapel has been improved considerably over its condition of last year. In places it has been re-plastered, and the entire building has been re-calcimined inside and re-painted on the outside.

University Grounds. There is marked improvement in these grounds, due to the fact that grading, etc., has been done which eliminates the possibility of standing water on the grounds. The grounds generally have also been very much beautified by the planting of attractive beds of flowers of various kinds and flowering shrubs.

Heating Plant has been enlarged very materially by the addition in the boiler room of a new boiler of 200 horse capacity, it being made necessary on account of the additional buildings that are this year being supplied with heat therefrom.

Dormitories. Many have been very decidedly improved by a complete remodeling on the interior, and re-calcimining and re-painting. All of these dormitories are now steam heated. Rutledge has been renovated, re-calcimined and re-painted and twelve beds added for the accommodations of students. These rooms occupy space which was heretofore waste space. Thornwell has been renovated inside; needs painting badly on the outside. Pinckney and Legare are dormitories in which rooms have been added, the middle tenement of Legare having been remodeled and much waste space utilized for rooms, which are now comfortable bed rooms. These buildings have been re-calcimined and re-painted and they are both now steam heated from the main heating plant of the University. In Legare building there has been established a postoffice with lock boxes and a postmistress is in charge. In this building a fine, commodious canteen has been added and conducted by the students, the profits from which are expended on student activities. A noticeable improvement in all the dormitories is the fact that the wooden staircases have all been removed and iron staircases put in their stead, which lessens to a great extent, of course, the fire hazard. Running water, hot and cold, is now in every bed room. It is regrettable to still note the fact that much space in the various dormitories is devoted to class rooms, libraries, etc., which deprives the student body of that much accommodation for bed room space, which necessitates the turning away of students who could be accommodated at the University. For instance, in Legare dormitory there are two class rooms occupying bed room space and in DeSaussure there are four or five class rooms, plus the educational library. One of the tenements of DeSaussure is also occupied by the President's office, and other offices, which emphasizes the fact, as previously stated, of the urgent need of an administration building. Classes are even conducted in the Chapel and in rooms over the Chapel.

The residences of Dr. Burney and Dr. Wauchope have been reconstructed and painted on the inside and stuccoed and painted on the outside. These now have heat furnished them from the main heating plant of the University.

Y. M. C. A. Building. In this building was noted a number of improvements. Linoleum has recently been placed on the floors and the building is now steam heated. On the second floor

there are now class rooms devoted to music and art, which are taught at the University.

Gymnasium. The gym., while ideally conducted and attractive in every way since the improvements made last year, is still in need of further improvement and attention. The very much desired addition of a swimming pool, which in all educational institutions of now-a-days is considered imperative, has not been made. There is no such thing as a swimming pool connected with the University of South Carolina, this being the only educational institution of any size, so far as your reporter knows, that is without one. There is ample space in the rear of the gym for the construction of such a pool, and it is hoped that this year the Legislature will see its way clear for the building of one, as I understand one will be requested by the authorities of this institution.

Class Rooms. As has been noted every year during the past two or three, space devoted to class rooms in this institution is absolutely inadequate for the needs of the University. Under "Dormitories" it has been noted that a great deal of space designed for use as bed rooms, is occupied for the use of teaching classes. Davis College is now absolutely inadequate for the classes for which it was originally designed. An entire new building at least the size of Davis, or if possible much larger, is one of the urgent needs of the University. The lack of dormitory accommodations, the lack of space in which to teach classes, is made more evident each year. This year about 200 students, mostly women, were turned away from the University on account of the scarcity of both bed rooms and class rooms for their accommodation.

Women's Building. This building was opened for the first time last year and before the student body had ceased to matriculate was found absolutely inadequate for the accommodation of the young women applying for admission to the University. Last year one or more houses in the neighborhood of this building were rented for the accommodation of young women who could not be accommodated in the Women's Building. This year several more large buildings have, of necessity, been rented for the still further accommodation of female students. Another women's building of even greater capacity than the present one must in the near future be constructed if it is the intention of

the people of South Carolina to furnish facilities for educating the large number of young women who are applying for admission to South Carolina University. The present building, it will be remembered, was built for the accommodation of 75, or a less number, of girls.

Recreation Grounds. During the past summer six new tennis courts have been placed on the grounds, giving the University now twelve tennis courts instead of six which were last year for use by the student body.

The Law Building is O. K. in every respect.

Library. The floor space occupied by the library of the University for the past number of years has become entirely inadequate for the purpose for which it is desired. Space is at a premium here and the library, as it at present is, is scarcely more than a fire trap.

General Sanitary Inspection is conducted each month at the University. This is an inspection extending even into the professors' homes, including bed rooms, etc. This year a physical examination for each and every student attending the University has been made compulsory, which is a decided advantage in the way of determining the general health of students entering the University and for the better observation and care of the student body generally.

LeConte College. The third floor of this building has been recently vacated by the Laboratory of the Department of Agriculture and the space will be devoted to class rooms, in which will be conducted various classes, including laboratory work, etc.

Respectfully submitted,

A. H. Hayden, M. D.,
Epidemiologist, State Board of Health.

SANITARY INSPECTION CEDAR SPRINGS INSTITUTE FOR THE DEAF AND BLIND

By Dr. A. H. Hayden

Columbia, S. C.,

September 26, 1925.

To the Committee on Sanitary Inspection of State Educational Institutions:

Gentlemen: On September 23, 1925, I visited and made a thorough inspection of the Institute for the Deaf and Blind at Cedar Springs, S. C., where it was gratifying to note that, as usual, everything was in excellent condition, with the improvements made and the very extensive improvements in process of accomplishment.

In my report for last year mention was made of the fact that the ground had been broken for the erection of a much needed hospital. On my visit this year it was gratifying to find that this building has been erected and the last details nearly completed, showing that it will be ready for occupancy in the space of the next week or ten days, the only thing of importance not yet accomplished in connection with this building being on the outside, viz., a covered way connecting the hospital with the primary building in the girls' dormitory. It is understood at present that within a few days there will be 315 inmates of this institution (the same number as last year) with the practical certainty that within a few weeks the number will be increased to 325. In connection with this report it is interesting to note that the hospital building is most conveniently arranged and everything apparently quite adequate for the conduct of such an institution, there being two isolated wards for contagious diseases, which wards have a kitchen provided for the exclusive use of patients therein so that nothing—cooking utensils, plates, knives, forks, etc., in use in these contagious wards will be allowed to become a source of infection to others who may be in the hospital without these contagious wards. In the hospital building also is a separate office for the doctors, and one also for the dentist who may have work among these patients. It is noted also that besides the general wards in the hospital, there is a separate ward for teachers. The authorities advise me also

that they have established a very excellent rule, to which there will be absolutely no exception, to the effect that no cases of sickness, either amongst pupils, teachers or officers, will be allowed in the dormitory. You will see, therefore, that being on the sick list makes it imperative that the patient whose name appears thereon must of necessity repair to the hospital and there remain until well of the infection which came upon him or her.

The Primary Building, Dormitory, Kitchen, Pantry, etc., seem to be orderly arranged and in a cleanly and attractive condition.

The School Rooms are, as usual, in a condition representing all that could be expected or required.

Girls' and Teachers' Dormitory. This dormitory through its cleanliness and attractiveness appearance indicates that all care necessary is bestowed upon it.

Ice and Cold Storage Plant. In my last year's report I stated there was no provision in the institution at that time for a cold storage room and an ice plant, which were among the very urgent needs of the institution. Since that report was made a very excellent cold storage room and ice plant have been established, which is a matter of great rejoicing and convenience among the officers of this institution and which fills a long felt need which, under circumstances easily understood, is a necessity in a proper and well conducted institution of this kind.

Milk Supply. It is regrettable that notwithstanding the fact that for several years past the writer has called attention to the very urgent need of a complete dairy equipment and the increase of the dairy herd "if the development and general health and good physical condition of the children are to be kept up to a standard which is necessary to the growing child," that this requirement has not been supplied by our State authorities. The milk supply is quite inadequate for the needs of the children, without the mention of certain quantities which should be supplied to the officers and teachers of the institution. I am advised by the Superintendent that so far as the herd is concerned, at least $2,000.00 will be required to be expended on the increase of this herd for a number that will supply milk sufficient for the inmates of the institution for the next few years. It is very much to be desired that this amount of money be furnished for

the purpose named, even though it might not be expended during the coming year, and that our Legislature appropriate sufficient money for the construction of proper dairy barns. The present supply of milk from the small herd of cows is about 25 gallons per day for 325 people; that is, pupils alone. Add to this number the officers, teachers and help of the institution would be 75, making in all 400 persons that should be supplied with an abundance of milk. It is quite evident, therefore, that they are very, very short on the milk supply, this amount being sufficient only for about one small glass a day per person for the pupils alone.

Gymnasium. While, of course, a gymnasium is not nearly as important a requirement for an institution of this kind as is a proper dairy and milk supply, it is undoubtedly a very latent need for the development, health and good physical condition of the children if it is proposed to keep them up to the present day standard of physical development. Calisthenics and gymnastics are absolutely necessary for the growing child that he may reach the present day standard of physical growth and development.

In closing this report it may be well to call attention to the wonderful spring of very excellent water that is available, and has been for a great number of years past, on the grounds of this institution, the output of water from which was not in the slightest degree affected by the recent and severe drought of many months past. This spring, I am informed, has a daily output of water amounting to 40,000 gallons, which is O. K. in every respect and would, if necessary, supply the total needs of this institution, 20,000 additional gallons. This addition, however, of 20,000 gallons per day is derived from deep wells through a pump. It is also an adequate supply without the use of this spring water. This institution has a storage capacity for 60,000 gallons of water. I am advised by the management that they are now figuring with the City of Spartanburg to pipe the distance between this institution and that City with 6,000 feet of piping to within one mile of Cedar Springs, which, of Spartanburg consents to do (which seems likely), Cedar Springs will pipe the remaining mile, which will give them an abundant supply of water for all purposes from the Spartanburg water system. There are two very important reasons why they should be connected with the Spartanburg water supply: first; for the

purpose of fire protection, which is very much needed; secondly, the management of the institution is very anxious to make a test relative to the cost of supplying sufficient water to the institution, believing that to pay for the water supplied in Spartanburg will be much cheaper and save considerable expense to the institution in view of the cost of the pumping which now is necessary to obtain their very abundant and adequate supply which they have enjoyed during the past and are now enjoying at the present.

Negro Building. The Negro building is very much in need of considerable repairs; in fact, the building should be abandoned and a new building furnished as soon as possible for the accommodation of the inmates of the institution. The building is supposed to accommodate, besides seven teachers, about 75 pupils. The building is crowded. The dormitory for boys and the industrial building combined need re-flooring badly and should also be painted and calcimined at the earliest moment. The kitchen also is in need of a cement floor. An open privy which stands nearby this institution and which was recommended last year to be abandoned and destroyed is still in use and should be immediately replaced by a privy of properly constructed pit type. At the time of my visit there were no occupants of the Negro quarters, none of the pupils having arrived.

Respectfully submitted,

A. H. Hayden, M. D.,
Epidemiologist, State Board of Health.

SANITARY INSPECTION OF UNIVERSITY OF SOUTH CAROLINA

By W. M. Lester, M. D., Columbia, S. C.

I made a sanitary inspection of the University of South Carolina on December 10, 1925. The sanitary conditions of this institution are very good, on the whole. However, there are a few conditions which should be corrected. The cafeteria and kitchen are very inadequately screened from flies and a good many flies were found in these places. In addition to repairing the screens that are already there, there should be more screens made and put in as flies by the thousands were on the outside in the rear of the building. There are eight or ten garbage cans

outside and within a few feet of the kitchen which were not protected at all. These garbage cans are not always emptied each day, and in addition to attracting flies they are very unsightly. There is also a perfect mountain of trash and cinders at the rear of the building. This should be removed as it detracts very much from the neat and cleanly appearance of the place. I found also that within a very short distance of the kitchen and dining room there is an old, delapidated, but still used, horse stable. This is a great breeding place for flies, and is entirely too close to the kitchen and dining room of the cafeteria. I would recommend the tearing down of this old stable and the building of another one farther from the building in which the cafeteria is situated.

In the Woman's Building additional screening at the entrance through which supplies are received is also very desirable as a barrier against the entrance of flies to the cooking and eating department of this building. I find that in this building also the garbage cans are not protected at all and the tops are not even kept on. These cans, in addition to being very unsightly, of course attract flies, and should be put into a screened compartment as a protection against flies.

The dormitories occupied by the boys are in a very much better physical condition than they were a year or two ago. However, they did not seem to be as clean as they might be, due possibly to the scarcity of janitor service. The floor of the canteen was filthy—dirty and full of scraps of paper. It was suggested that a suitable receptacle be put in the canteen and the students requested to put their papers and such other litter as they might make in this receptacle. I am told that the canteen is cleaned up every morning but within an hour after it is cleaned up the floor gets littered up with papers, cigarette stubs and other unsightly looking trash.

Of course, the University could be very much improved by the expenditure of money. New dormitories for the girls are very much needed; larger class rooms, enlarged infirmary, swimming pools, and various other improvements are very desirable, but I conceive that all these things are without the sphere of the State Board of Health. With the few exceptions noted above, the sanitary conditions are very satisfactory.

W. M. Lester, M. D.

MEMORANDUM REPORT—SEWERAGE AND PRIVIES AT FARM—WINTHROP COLLEGE

Nov. 5, 1925.

At the request of Dr. Wm. Egleston an inspection of the privies at the farm of Winthrop College and certain sewerage conditions at the college was made and the following conditions were found:

The Privies at the farm are of the PIT type and are in good condition as to location, construction and cleanliness. The nearest to any of the sources of water supply, deep wells, is 200 feet in one case and the balance are from 300 to 600 ft. distance and are on the slope of the ground below the wells. No contamination of the water supply is probable, and no necessity exists for replacing these privies.

The two residences occupied by Dr. Pugh and Prof. Burgin have septic tanks that discharge into an open ditch. Dr. Pugh's residence can be connected with the college sewer system and this should be done at once. The discharge from the tank at the residence of Prof. Burgin should be into an open tile subsurface distribution system, which can be easily done.

In the absence of Dr. Johnson at the time of my visit, the above matters were discussed with Mr. Claussen, the College Engineer, and the above changes and recommendations understood between us, and also that he would take the matter up with Dr. Johnson.

Respectfully submitted,

A. E. Legare,
Sanitary Engineer.

SANITARY INSPECTION OF A. & M. COLLEGE, ORANGEBURG, S. C.

By W. M. Lester, M. D.

Under date of December 4, 1925, I visited the Agricultural and Mechanical College at Orangeburg and found conditions very good indeed from a sanitary standpoint.

Like all other State institutions, this college is crowded for room, both in the male and female dormitories, but more especially in the male. The rooms were found to be clean and neatly

kept. The kitchen and cooking arrangements were fair. A few suggestions in regard to screening the kitchen were made and the President can easily carry them out with the aid of the students. These suggestions, if carried out, will, I feel sure aid materially in preventing flies from entering the kitchen and dining room. There are no screens in the dormitories and while it is very desirable to have such screens and whereas it is a State law that these places should be screened, I was told that very few mosquitoes gained entrance into the dormitories during the school term. These screens could be made by the students themselves; that is, wooden screens, for wooden screens will last a long time if they are kept painted.

There is one outstanding, and in my opinion, dangerous menace and that is the present cow barn and horse barn. They are entirely too close to the milk room and to some of the private residences. In addition to this, they are both in a very delapidated condition. The danger of flies from these sources is very great, and I would strongly urge the tearing down of these old shacks and the building of proper barns at a further distance from the institution.

With the exceptions noted above, I found this institution in a very satisfactory condition from a sanitary standpoint.

W. M. LESTER, M. D.

SANITARY INSPECTION OF THE SOUTH CAROLINA PENITENTIARY

By E. A. Hines, M. D., Seneca, S. C.

I inspected the Penitentiary Dec. 1, 1925. There are five hundred and forty-four prisoners in the institution as follows:

White males 291.
White females 7.
Colored males 209.
Colored females 44.

Very few were sick and in the hospital at the time of my visit. Only about half dozen whites and about the same number of colored suffering from chronic diseases. The mortality is strikingly low. There have been only ten deaths this year. Tuberculosis is no longer a serious menace. There was only

one patient in the tent. The major disease problem is syphilis. 40 to 50% show 1 to 4 plus Wassermann upon admission. In recent months ninety cases of syphilis have been under treatment with good results. There had been only three cases of gonorrhea. There has been a marked increase of youthful prisoners, able-bodied young men from 17 to 30. The State provides most excellent scientific care for the health of the prisoners. Each one upon admission is given a complete physical and dental examination. Physical and dental defects found are followed up by treatment. Most of the major surgical operations are performed at the State Hospital through the cooperation of Dr. F. C. Williams, Superintendent. Several physicians in private practice have rendered valuable service, among them Dr. M. H. Wyman and Dr. Richard Allison. The Baptist Hospital has also been available.

The buildings of the South Carolina Penitentiary cannot be modernized without enormous expense, therefore the problem of sanitation is a highly complex one. The authorities have done well under the circumstances. The laundry has been improved somewhat and a fire escape added to the woman's building since the last inspection. The chief industry is a fibre craft chair factory in which 225 prisoners work. The machinery and workers are much overcrowded.

Two farms in adjoining counties employ about 100 colored men.

When it is considered that the stay of a prisoner in the South Carolina Penitentiary is comparatively short, the life termer averaging about ten years, it appears that he is treated humanely and scientifically from a health standpoint. Dr. George Benet is the surgeon in charge, Dr. E. P. White the physician and Dr. C. C. Stanley the dentist. Honorable A. M. Scarborough is the Superintendent and B. E. Evans is captain of the guards.

SANITARY INSPECTION OF THE CONFEDERATE HOME

By E. A. Hines, M. D., Seneca, S. C.

I inspected the Confederate Home, December 1, 1925. The last Legislature provided for the admission of women so that now there are both men and women at the institution.

A considerable number of the old soldiers died during the year as was expected considering their advanced age.

Under the new law about nine or ten women have been admitted, the oldest being ninety-seven.

Several old Veterans are in the nineties. There are about fifty there at present. Comparatively few of them are bedridden. The infirmary is admirably conducted. The medical and nursing attention impressed me as being satisfactory. The buildings are modern and kept in a sanitary condition. The food appears to be ample and well balanced. The citizens of South Carolina may well feel proud of the care given the few remaining defenders of the Southern Cause in their declining years.

Capt. W. H. Stewart is the capable Superintendent.

January 6, 1926.

To the Chairman and Members of the Executive Committee of the State Board of Health:

In submitting my report to you in connection with the inspection of the State Hospital for the Insane I am attaching herewith the reports of Dr. A. H. Hayden, Epidemiologist, State Board of Health, and Mr. A. E. Legare, State Sanitary Engineer, which they have made by request after a close inspection of all departments of this institution.

It is a deplorable fact that in many particulars, more especially in the building for the housing of the inmates, this institution is inadequate for the demands made upon it by the citizens of our State. In every department there is overcrowding to the utmost limit and many additional buildings should be supplied to this institution, both in the City of Columbia and at State Park. While the sanitary conditions generally are excellent and the management of the institution apparently all that could be desired, there is very urgent need for a number of improvements, which should be supplied immediately if possible. Among these I would mention the immediate construction of a new and larger septic tank for the institution at State Park and a building erected which would accommodate all of the colored insane now cared for by the State. Also, there is immediate need at the institution in Columbia of a very much

enlarged and improved nurses' home, immediate reconstruction and renovation of the old Mills Building now occupied by negroes, removal of these negroes from the same out to State Park, and the building put in proper condition for the accommodation of white patients in the near future, which would very much relieve overcrowded conditions in the white ward. Practically each and every ward needs enlargement, or better still, an additional new building should be constructed for the accommodation of a number of the present overcrowded patients and the accommodation of something near 200 applicants who of necessity were refused admission into this institution during the past year. Also, the laundry accommodations should be enlarged at once.

For further and more minute details I would refer you to the reports of Dr. Hayden and Mr. Legare above referred to which, as I have said, are attached to this report, and which it would be superfluous for me to repeat at the present.

Respectfully,
BEN F. WYMAN, M. D.

To the Chairman and Members of the Committee on the Sanitary Inspection of State Institutions:

Gentlemen: On request of Dr. Ben F. Wyman, I made, in December 29, 30 and 31, 1925, a sanitary inspection of the various departments of the South Carolina State Hospital for the Insane, and beg to report as follows:

The capacity of the buildings in use by this institution are entirely inadequate for housing and caring for the present occupants of the institution, and those without the institution in urgent need of admission thereto. In looking over the records of the institution for the past year as of December 1, it is found that the capacity of the institution is for the accommodation of 2,287 patients, while they are actually caring for at the present time 2,527, an excess over and above its capacity of 240 patients which, it is easily understood, renders conditions insanitary as there is not cubic foot space for each patient as is required in a well regulated institution for the preservation or improvement of the health of its inmates. In addition to the above fact, it is worthy of especial emphasis that during eleven

months, or a little more, of 1925 there were 159 persons applying for admission, and in urgent need of admission and treatment for their mental troubles, who, of necessity, had to be refused admission to the institution, which, of course forced them for their personal care and the safety of the community at large, into possibly jails and penitentiaries. Further comment upon the inadequacy of building room in this institution is, therefore, unnecessary.

In that portion of the hospital which is located within the City of Columbia the following facts were obtained. In the old building (the Mills Building) the need of repairs—calcimine, plaster, etc.,—is urgent. On the third floor, instead of a tile floor there is an old wooden floor through which water leaks so badly that it has practically destroyed the ceilings, and in many instances the walls, of the floor beneath. This entire building is in need, not of remodeling, but of entire renovation. It is at present occupied by negroes for whom building room should be supplied at State Park, where all negro patients should be cared for, and this building, after renovation and improvement, turned over for occupancy by white patients who have up to the present been denied admission on account of lack of room in this institution. In this building there are also inadequate toilet arrangements for the use of patients. This inadequacy is noticeable practically throughout the institution.

The State Hospital is very much in need of a much larger nurses' home than it now possesses, the present building being entirely too inadequate for the needs of the nursing staff. In the present building there is no provision for a class room for nurses, no bed rooms and not even sufficient space that is devoted to dressing rooms. All nurses sleep on sleeping porches and the limited space occupied by dressing rooms is inadequate even for the accommodation of one-third of the nursing staff.

Tuberculosis Camp seems to be O. K. in every respect and apparently of sufficient size to meet the needs of the institution.

Talley Building. This building, known as the Violent Ward, has practically twice as many inmates as the building was designed to accommodate. It is well kept.

North Building is occupied by wards and occupational rooms; is in fair condition generally, the sanitary condition being good.

Center Building. This building is the hospital ward, and is badly over-crowded. Beds are entirely too close together to meet the requirements of health conditions. There is no sitting room in connection with the ward whatever and patients are forced to sit and crowd into the small and cramped hall in connection with the ward.

Dining Room of the Fourth and Seventh Wards is badly in need of dish-washing appliances as the one in present use is entirely inadequate for washing the dishes in which to serve meals for 140 patients. In the Eighth Ward, which is the receiving ward for patients, a diet kitchen should be at once supplied.

Parker Building. Floor in basement, which is of wood—what is left of it—needs to be taken up and a new floor laid.

Laundry is over-taxed to a very great extent. It is not large enough for the present demands made upon it by this much over-crowded institution.

The *Refrigerator Plant* is entirely inadequate, but there are at present preparations being made for its enlargement.

Amusement Hall. This is a necessity in institutions of this kind, but up to the present none has been provided for the State Hospital for the Insane. The servants' dining room in the building for the accommodation of white males is now, and for the past number of years has been used for recreation in the way of moving pictures and dancing by the inmates, and is the only place in which it is possible to hold religious services.

I would call special attention to the fact that the over-crowding in this institution is due in part to its forced accommodation of low grade imbeciles and idiots, who belong properly to such an institution as the entirely inadequate school now maintained at Clinton, S. C., which school should be immediately enlarged (the need of this enlargement has been felt for many years) so as to relieve the State Hospital of the care and attention now given to this class of unfortunates. In the State Hospital at this time there are 292 persons classed as low grade imbeciles and idiots, constituting approximately nearly nine per cent of the inmates of the institution.

Occupational Building. This institution is very much in need of the construction of a special occupational building. The room

now used for the purposes of such a building is entirely too small and inadequate in every way to meet the needs of the inmates.

The colored insane wards at State Park were thoroughly inspected and found to be, as were the departments of the institution in the City of Columbia, well kept and in most satisfactory sanitary condition. In the department at State Park there is practically no dairy barn and no milk room. A modern, up-to-date barn and milk room is very much needed and should be supplied at once. The feed troughs in the barn, if such it may be called, were in such wretched condition that there is a very large amount of waste in the silo matter fed to the stock, which is by them unavoidably strewn on the ground, trampled and lost. The present barns are entirely too near the buildings of this institution and should be removed to a much greater distance from the same than they now are. They are a source of annoyance and are the cause of multitudes of flies which may, and do, give trouble about the institution. This branch of the institution at State Park, like the branch within the City of Columbia, is very much in need of a number of new buildings for the accommodation of its inmates. It is badly over-crowded. An old building on the grounds which was originally intended for the laundry building is now occupied by 86 men. Its general arrangements are miserable and the entire building unfit for the purpose for which it is used. The heating arrangements in this building are absolutely inadequate, and being heated by stoves is a source of momentary danger from fire.

Female Building. In this building there is no heat whatever in the sleeping apartments. The entire heating apparatus is extremely unsatisfactory and absolutely inadequate to furnish heat sufficient for the comfort and health of its inmates.

Septic Tank. Is in wretched condition, conspicuous chiefly for leaks and overflows, and is about half the size of a septic tank with capacity sufficient to care for the needs of the institution.

Abattoir at the institution in Columbia and the dairy barn connected with the same are in excellent condition—well-kept and sanitary in every particular.

Respectfully submitted,

A. H. Hayden, M. D.,
Epidemiologist, State Board of Health.

MEMORANDUM REPORT SANITARY INSPECTION SOUTH CAROLINA STATE HOSPITAL, COLUMBIA, S. C.

Dec. 29, 1925.

The following report of an inspection of the South Carolina State Hospital is hereby submitted:

NEGRO WARDS AND FARM, STATE PARK

Men's Ward. Considering the class of inmates, the sanitary conditions are highly creditable and remarkable.

Women's Ward. This building should have more adequate heating arrangements and is over-crowded. The sanitary conditions are as good as conditions allow.

Laundry Building. This building is used as an additional Men's Ward and is entirely unsuited for the purpose. The heating arrangements are a fire hazard and the inmates are too much exposed to bad weather conditions.

Sewerage Disposal. The Septic Tank is entirely too small for the amount of sewerage and the tile distribution system has filled up and is not functioning; creating a very offensive local condition.

Dairy. The present arrangements are absolutely unsanitary in every way, the barns being an excellent fly breeding place, in close proximity to the main buildings.

BUILDINGS AND PLANT IN COLUMBIA

The general condition of the buildings is excellent as far as sanitary conditions are concerned, but it is impossible under the peculiar conditions existing as to personal cleanliness of the inmates to keep wood floors in proper sanitary condition. In the wards where these wood floors exist, immediate replacement by either tile or cement floors should be made. The grounds are well kept and proper drainage provided. Kitchens and Dining Room are well conducted and clean.

Dairy. Well situated and site drained. Milk rooms and premises kept in good condition.

Respectfully submitted,

A. E. Legare,
Sanitary Engineer.

Chester, S. C.,
Dec. 15, 1925.

The Executive Committee, State Board of Health, Columbia, S. C.:

Gentlemen: The School for Feeble Minded at Clinton, S. C., was inspected by me on December 11, 1925.

There are many signs of improvement and development of plant since my visit of two years ago. The most recent improvement is a completed home that is occupied by Assistant Superintendent. This is a modern building of brick construction and fills a very necessary need. The new laundry building is completed and is being used although all the machinery has not been placed. This is a wonderful improvement over the old wooden building which was a constant fire hazard. The old building will be put to use as a potato or vegetable house. A small wooden building has been completed, which was intended for the home of the mechanic.

The general sanitary condition of all dormitories is remarkably good considering the type of patient cared for. With a little repair to the plumbing and floors, the building will be in first class condition in every respect. The small wooden shacks are serving a very good purpose but should be replaced, for many reasons, by fire proof ones as soon as possible. Plumbing and water have been put in the building used for old men some distance from the central plant and adds to convenience and sanitary conditions there.

The general health of colony seems good. There is one case of tuberculosis which is arrested and patient is in good general condition but is still kept isolated. There has been one death during the year—an adult male. There have been only five deaths since the beginning of the school. There are on display many articles that have been made by the pupils, which is an indication of the good work that is being carried on by efficient teachers.

The crying need of the school at present is a modern fire proof building for dining hall and kitchen. The present wooden structure has served a good purpose but is a tremendous fire risk and difficult to keep in sanitary condition. This building could be used for school purposes with much less risk from stand-

point of the fire because of fact that only small groups would be in building at one time.

There have been improvements in the dairy but it is still not adequate for the needs of the school.

The water supply held out during the recent drouth, with some curtailment, which shows that the wells can furnish a liberal supply of water. The sewerage disposal becomes a greater problem as the plant grows. While the septic tanks, of which there are a good many, I believe are efficient, but it seems to me that a general sewage disposal should be made in a near-by stream.

The Superintendent and his assistants are to be commended for the work they are doing for these unfortunates, and the need for enlargement is indicated by the fact that three hundred are on general waiting list, and two hundred and forty that should be removed from State Hospital for Insane.

Respectfully submitted,

W. R. Wallace.

SANITARY INSPECTION STATE REFORMATORY FOR BOYS AT FLORENCE, S. C.

An inspection of the South Carolina Reformatory for Boys, at Florence, S. C., disclosed an institution that was in apparently first class sanitary condition. There is little, if any, over-crowding of inmates; the food supply is nourishing and plentiful, and even the spiritual life of these inmates is properly cared for.

It is recommended however, that an Infirmary building be erected, as the need for same is very apparent. They are using at present a second story of an old, ill heated building, without proper accommodations for the number of patients, no proper provision for securing hot water, food, or even heat. It is therefore recommended that the need for an Infirmary at this institution be strongly urged.

The Dairy was in most excellent condition, and the only suggestion to be made is that the inspection of the milk be made monthly in order that the bacterial condition may be known.

Respectfully submitted,

Ben F. Wyman, M. D.

Dec. 18, 1925.

REPORT OF DR. A. H. HAYDEN, EPIDEMIOLOGIST STATE BOARD OF HEALTH

To the State Health Officer and the Chairman and Members of the Executive Committee of the State Board of Health:

In addition to recording most of the various places visited by me during the past year on account of diseases present or threatening which might become epidemic, I have, as usual, been called from time to time during the year to advise with local authorities on questions of the health laws of the State, either to explain or enforce the same, and also, as heretofore, to determine questions of diagnosis for physicians differing in opinion io the matter of diagnosis of quarantinable or reportable diseases existing in their communities, and also to organize, or assist in the organization of local boards of health, etc.

Besides undertakings requiring travel, I of course have been engaged during the past year in various other duties connected with the office of the State Board of Health, including conversations by phone and by wire of an advisory nature, the dictation of numerous letters, and such other office activities as happenings of unusual character, emergencies, etc. I would call your attention to the pleasing fact that notwithstanding the fact that it requires eternal vigilance to keep communities at large mindful of the necessity of strict observance of the health laws of the State, it is quite noticeable that cases of violation of these laws are not nearly so numerous, either by individuals or communities, as they have been in former years.

In closing this report, I unhesitatingly quote the following three-fourths of my annual report of last year, with the suggestion that some step further than has heretofore been taken be now taken to bring to the immediate attention of the General Assembly the recommendations, with your approval, therein contained.

I would call your attention again to the violation, knowingly and wilfully in most cases, of the health laws of the State and the rules and regulations of your board made mandatory upon the educators of our State for the protection of the health and the lives of children under their care, and to which the vast majority of teachers, principals and superintendents pay not

the slightest heed, treating the same, as more than one has remarked to me, "as a joke." The compulsory vaccination law of the State against smallpox is violated to a greater or less degree by well nigh all of the school authorities, all of whom claim exemption from any responsibility for its enforcement. As to Rule 14, mentioning diseases, "Quarantinable for School Purposes; Barred from School Twenty-One Days," which include practically all the diseases of childhood, the majority of children in the rural districts at least being never seen by a physician when suffering with such infections; and Rule 15, "Minor Diseases to be Excluded During Illness," which includes tonsilitis, itch, lice, impetigo contagiosa, favus, etc., seem to have never been heard of by teachers, principals of schools and superintendents generally, and are not as a rule heeded by those few who know of these rules, save by the few schools in the larger cities of the State.

In his annual report for 1923 the State Health Officer (page 11) made an "urgent request" to the General Assembly relative to steps to be taken for the enforcement of the compulsory vaccination law in which he said, "We feel that we should have the most hearty cooperation from the county superintendents of education in this work," in accord with which "urgent request" no action whatever has been taken. May I suggest the importance of petitioning the General Assembly, as early as possible after that body convenes, to take action not only in the matter of compulsory vaccination against smallpox alone, but to take such steps as they may deem effective to make some person, or persons, in the educational department of our State responsible for the enforcement of all health laws, rules and regulations which have already been, and may hereafter be, enacted for the preservation and protection of the health and lives of the school and other children of our State. That the needed attention would be accorded these matters by the General Assembly, I have no doubt, if your Committee would arrange to send a committee of your selection to bring them to the attention of the proper committees of the General Assembly.

In closing may I suggest that in considering this report you would consider the advisability of including inoculation against typhoid fever and diphtheria as a requirement before admitting children into the schools of the State, and also the enactment

of a law requiring a clean bill of health from the hygienic laboratory of the State Board of Health so far as being a carrier of typhoid fever is concerned before any domestic help can be employed by any institution, educational or otherwise, being in whole or in part maintained by the appropriation of State monies."

January 15-16. Trip to Chesterfield, S. C., to direct the management of smallpox outbreak.

January 21-22. Berkeley County to investigate outbreak of smallpox, vaccinate contacts and enforce quarantine.

January 27. Trip to Aiken County to advise county health officer and direct handling of smallpox outbreak in the vicinity of Ellenton.

January 30. Trip to Batesburg, S. C., to investigate smallpox outbreak and decide questions and differences of opinion between local board of health and mayor of Batesburg.

February 5-7. Chesterfield County to investigate outbreak of smallpox and enforce quarantine and vaccination of contacts.

February 7. Columbia, S. C., to diagnose case of smallpox for attending physician.

February 18-19. Poston, S. C., to investigate case of smallpox and enforce quarantine and vaccination.

March 6. Fairforest, S. C., to investigate outbreak of smallpox and enforce vaccination in schools.

March 8-9. Clio, S. C., to diagnose cases of smallpox where physicians disagreed.

March 17. Summit, S. C., to diagnose cases of smallpox, vaccinate 50 contacts and compel trustees of school to comply with the compulsory vaccination law.

March 17. Gilbert, S. C., to diagnose cases of smallpox, vaccinate contacts and compel trustees of school to comply with the compulsory vaccination law.

March 21-22. Tillman, S. C., on request of attending physician to diagnose case of suspected scarlet fever.

March 23-24. Moncks Corner, S. C., to diagnose four cases of smallpox on request of attending physician.

March 25-26. St. Stephens, S. C., to investigate outbreak of smallpox and institute quarantine.

March 25-26. Moncks Corner, S. C., to investigate outbreak of smallpox and institute quarantine.

March 26. Strawberry, S. C., investigating outbreak of smallpox and instituting quarantine.

March 29-30. Central, S. C., to investigate cases of smallpox and make diagnoses in cases in which physicians disagreed.

March 31. Lanes, S. C., to diagnose cases of smallpox on request of A. C. L. Railway authorities.

April 1. Lanes, S. C., to visit R. R. construction gang for A. C. L. R. R. authorities and diagnose cases of suspected smallpox.

April 1. Camden, S. C., to see cases of smallpox in suburbs by request of Camden Health Officer.

April 3. Trip to Leesville, S. C., to advise with local board of health relative to smallpox situation.

April 7-8. Florence, S. C., to diagnose a case undertermined by local physicians as to whether it was smallpox or chickenpox.

April 14. Florence, S. C., to diagnose a case of smallpox at request of the Florence Health Officer.

April 18. Lexington, S. C., on call of county officers to see cases of suspected poisoning seven miles in county with Dr. J. W. Wessinger, where one death occurred.

April 21-23. Spartanburg, S. C., in attendance on convention of S. C. Medical Association.

April 26. Salley, S. C. and vicinity, to investigate a reported case of cerebrospinal meningitis.

May 14-15. Charleston, S. C., on request of City Health Officer to inspect stables of city.

May 19. Columbia, S. C., and vicinity south of city, to inspect property of McCreery-Pressly Co., L. F. Moon and Hunter Gibbes on complaint of insanitary conditions of toilets, etc., these properties of Lower St., Palmetto Alley or Stump Row and also No. 301 South Edisto Avenue, Rose Hill.

May 20. Camden, S. C., to investigate and otherwise look after two cases of smallpox in Wateree Mill Village.

May 28. Edgefield, S. C., to diagnose suspected case of smallpox.

May 31. Bishopville, S. C., to diagnose cases of suspected smallpox near Lucknow on urge of Dr. H. M. McClure of Bishopville.

June 10. Inspected Smith's Station and vicinity of Congaree Fertilizer plant, etc.

June 11-12. Six Miles (Pickens County), to diagnose cases of smallpox and enforce vaccination of contacts and quarantine.

June 21-23. Columbia, S. C., revising and re-arranging Sanitary Code of South Carolina.

June 27. Richland County inspecting, on complaint of residents, hog-pens in Booker Washington Heights.

June 27. Columbia, S. C., searching with police authorities for a fake doctor operating in State on request of doctors.

June 29. Columbia, S. C., continued search with officers for fake doctor.

July 1. Columbia, S. C., checking up and investigating reported cases of infantile paralysis in Columbia and vicinity.

July 3. Columbia, S. C., in consultation with local physicians in diagnosis of suspected cases of infantile paralysis.

July 5. State Park, S. C., to investigate case of suspected Polio in vicinity.

July 9. Pelion, S. C., to diagnose case of Polio in vicinity.

July 9. Swansea, S. C., to diagnose case of Poliomyelitis in Calhoun County.

July 10. Florence, S. C., investigating cases of Poliomyelitis with Dr. Leak of U. S. Public Health Service.

July 10. Darlington, S. C., investigating cases of Polio with Dr. Leak of U. S. P. H. S.

July 10. Hartsville, S. C., investigating cases of Polio with Dr. Leak of U. S. P. H. S.

July 13. McCormick, S. C., to diagnose cases of smallpox in vicinity and enforce quarantine.

July 14. Florence, S. C., with Dr. Leak of U. S. P. H. S. in connection with his Poliomyelitis investigations.

July 15. Ridge Spring, S. C., in attendance at meeting Second District Medical Association.

July 16. Columbia, S. C., delivered lecture to State firemen at their annual meeting.

July 17. Inman, S. C., to diagnose suspected case of infantile paralysis.

July 20. Timmonsville, S. C., to diagnose case of infantile paralysis on request of attending physician.

August 2-3. Georgetown, S. C., to see a case of infantile paralysis with County Health Officer and attending physician.

August 10. Sumter, S. C., to inspect sections adjoining the town and advise with town authorities on matters sanitary.

August 11. Greeleyville, S. C., to investigate outbreak of typhoid fever in rural districts.

August 14. Trip to Camden, S. C., to investigate outbreak of typhoid fever and determine focus of infection.

August 19. Lancaster, S. C., to inspect and close slaughter pen.

August 18. Columbia, S. C., inspecting nuisances complained of.

August 20. Conastee Mills, Greenville, S. C., to inspect conditions on Reedy River on complaint.

September 5. State Park, S. C., to diagnose suspected cases of Poliomyelitis in vicinity.

September 11. Lakeview, S. C., to inspect toilet conditions in connection with swimming pond on request of patrons.

September 16. General inspection of town's drainage, including Bear Creek.

September 23. Cedar Springs, S. C., annual sanitary inspection Institution for the Deaf and Blind.

September 24. Clemson College, S. C., annual sanitary inspection of the College.

September 25. De la Howe, annual sanitary inspection of the Institution.

September 27-28. Rock Hill, S. C., annual sanitary inspection of Winthrop College.

September 29. Columbia, S. C., annual sanitary inspection of University of S. C.

September 30. Orangeburg, S. C., annual sanitary inspection of State Agricultural and Mechanical College.

October 1. Charleston, S. C., annual sanitary inspection of the Citadel.

October 2. Charleston, S. C., annual sanitary inspection of South Carolina Medical College.

October 6. Richburg, S. C., to investigate outbreak of typhoid fever and determine the source of infection.

October 8. Allendale, S. C., to determine cause of outbreak of typhoid fever.

October 9. Gilmania, S. C., to investigate relative to cause of outbreak of typhoid fever and vaccinate against it 79 persons.

November 6-15. Dallas, Texas, attending meeting of the Southern Medical and Public Health Assn.

November 22-23. Ridgeland, S. C., to investigate outbreak of diphtheria in a school of 300 children, take throat and nose swabs and locate carriers of the disease.

November 24-25. Wisacky, S. C., to investigate outbreak of typhoid fever, determine source of the infection and vaccinate 150 persons against the disease.

November 29-30. Florence, S. C. and Georgetown County to investigate epidemic of scarlet fever and enforce quarantine.

December 8. Columbia, S. C., inspecting septic tanks on Second Avenue on complaint in suburb of Columbia.

December 17. Denmark, S. C., to investigate outbreak of typhoid fever in Voorhees Normal and Industrial School.

December 29. Columbia, S. C., locating and diognosing suspected case of diphtheria.

December 29. Richland County, making annual inspection of colored Insane Hospital at State Park.

December 30. Columbia, S. C., making inspection of State Hospital.

December 31. Columbia, S. C., making sanitary inspection of Dairy at State Hospital.

Respectfully submitted,

A. H. Hayden, M. D.,
Epidemiologist, State Board of Health.

ANNUAL REPORT OF THE BUREAU OF CHILD HYGIENE FOR PERIOD DECEMBER 1, 1924 TO DECEMBER 1, 1925

Administration:

The work of the Bureau has grown a great deal during the past year and many more requests for service have been received than in previous years. It is the policy of the Bureau to keep in touch with county, community and industrial public health nurses, clubs and other interested organizations in order that health work may be correlated and the same general plan followed.

In accordance with this policy, visits to services have been made by the district supervisors and the director and nursing assistance has been given in 14 tonsil and adenoid clinics by either the supervisors or the director. Twenty-six health talks have been made by the director and the supervising nurses to clubs and public meetings, and a number of visits have been made to counties and communities to confer with local people in regard to contemplated services.

The director served as chairman for Child Health Day (May Day) and was successful in securing a statewide observance of it. This entailed an enormous amount of correspondence and the preparation of much material, especially for use in the schools as well as visits to some communities, but the good educational programs, which were put on were a justification for the time spent.

The securing and placing of nurses has been a vexing problem. During the year four nurses, not previously employed in the State, were placed in counties and ten nurses already employed were placed in other positions. Four nurses resigned because of illness and one to be married.

There is at present only one service without a nurse and a competent and experienced person has been secured to take that position.

The work done by the maternity-infancy nurses has been very stimulating to the counties where they have worked and many inquiries are being made as to the manner in which these counties may secure nurses.

Field Work:

Classes of midwives and mothers have been taught by the State maternity-infancy field nurses in these counties: Chesterfield, Lancaster, Calhoun, Bamberg, Barnwell, Allendale, Georgetown, Colleton, Marlboro, Sumter, Williamsburg, McCormick, Edgefield and Berkeley. 1233 midwives enrolled and 676 have been given certificates to practice for one year under the supervision of the county health department or the Bureau of Child Hygiene of the South Carolina State Board of Health. The classes in Edgefield, McCormick and Berkeley will be completed in December, which will add about 200 to those receiving certificates.

In Lexington County classes for midwives were begun the first of October, but after a few weeks' work the instructor, Miss Blackburn, was withdrawn at the request of the county medical society who stated that they did not approve of giving certificates to these women.

The midwife classes are attended by many other negro women who do not expect to practice, but who come to learn what kind of care they have a right to expect from the woman whom they employ.

In connection with this work the field nurses have held 13 child health conferences at which 430 children under school age were examined. Dr. Dotterer, the State pediatrician was present at these conferences.

Two tonsil and adenoid clinics were held as a direct result of these conferences.

The field nurses have made many health talks to clubs, schools and public meetings in the counties where they have worked, and assisted with the May Day program.

The Child Health Truck was in the field from April 13 through October 3, visiting the following counties: Allendale, Bamberg, Barnwell, Beaufort, Colleton, Horry, Marlboro, Charleston, Chesterfield, Darlington, Kershaw, Richland, Fairfield, York, Abbeville, Greenwood, Newberry, McCormick, Edgefield, Aiken and Dillon. 195 conferences were held and 3832 children were examined of whom a large percentage were defective. Barnwell, Darlington and Horry Counties had tonsil and adenoid clinics to take care of defects discovered.

The Truck has served a very useful purpose in carrying the State Board of Health to the rural people and has certainly

spread a knowledge of what the health work of the State is. It now seems that the work could be carried on with less expense by disposing of the Truck and using another plan.

Special Work on Birth Registration:

Since November 10th Miss Blackburn has been doing a special piece of work for the purpose of increasing birth registration. She has visited many of the districts where the "check-up" showed unusually bad reporting and has conferred with doctors, registrars and medical societies, presenting to them the value and necessity of prompt and accurate reporting of births. She has found a great indifference on the part of many physicians while others seem to respond very cordially to the suggestions made. This work will continue through September.

Poliomyelitis Work:

Due to the reporting of an unusual number of poliomyelitis cases and on the advice of Dr. Leake of the U. S. Public Health Service, Miss Sarah Smith was employed on July 22nd to visit the cases reported and give to the parents instruction in the proper care of the child whenever the physician in charge wished this service.

Miss Smith visited 125 cases up to October 15th at which time she was transferred to Georgetown as county nurse. A few physicians were unwilling for her to visit their cases, but the majority were very glad to have her assistance. Copies of her records have been sent to the county health officers or public health nurses so the cases can be followed up by them and records of cases, in counties where there is no nursing service have been kept in the Bureau of Child Hygiene office to be followed up by the staff nurses.

Midwife Supervision:

The supervision of midwives in the counties, where there is no permanent health service has been divided between Miss Blackburn and Miss Malone. All classes of midwives who have been taught have had at least one supervisory visit during the year and some have had two. The nurses report that the midwives are keeping their bags in good condition and the majority of the physicians are pleased with the improvement in their work. The registrars say also that they are being prompt in birth reporting.

Educational:

Three student nurses have completed the course of public health training and two others will finish in January. The second Institute, which is a part of this course, was held the first two weeks of December and was attended by many outside people in addition to the regular students. These students get their practical training by acting as assistants to the Field nurses and are paid no salary, but are allowed $50.00 per month toward expenses.

We have had many more applicants for this course than we can take care of.

A large amount of health literature has been distributed by the Child Health Truck, the maternity-infancy field nurses and directly through the office of the Bureau—12,000 pieces by the Child Health Truck alone. This literature includes pamphlets on prenatal and infant care, the pre-school child, Food For Young Children and School Lunches, which are supplied by the Federal Children's Bureau and the Department of Agriculture. Many publications of the Metropolitan Life Insurance Company, the American Child Health Association and the S. C. Board of Health has also been distributed.

Lectures were given by the Director and Miss Cunningham at the Federated Clubs' short course at Winthrop College in June.

The use of the Circulating Library has increased a good deal this year.

Exhibits:

An exhibit was prepared for the State Fair which was very favorably commented on and other attractive exhibits were sent to be used at eight county fairs.

The supply of posters, which the Bureau has on hand to lend, is in constant use by clubs, schools, county and city nurses. In some cases the school children have copied the posters in order to have a permanent exhibit in their schools.

Plans for the coming year involve the teaching of midwives in all the counties where they have not as yet been instructed and an arrangement for more constant supervision.

The resignation of Miss Mary McMillan, who has been with the department as staff secretary for four and a half years, was received on November 15th and will take effect at the end of

December. Miss McMillan has given very efficient service and the Bureau is very sorry to lose her. Her position will be filled on January 1 by Miss Mary McNaull.

Respectfully submitted,

ADA TAYLOR GRAHAM, Director.

The statistical report attached is divided into two parts; that showing the work of nurses who are a part of a County Health Unit and that of nurses working in counties or communities where there is no Health Unit or where the work of the nurse is not directly connected with it.

SUMMARY REPORT OF NURSES WORKING WITH COUNTY HEALTH OFFICER DURING THE YEAR, 1925

CLASSIFICATION OF VISITS:	
Prenatal visits	618
Postnatal visits	1,374
Infants and pre-school children	1,805
Tuberculosis	835
Other communicable diseases	585
Other nursing visits	1,176
Total number nursing visits	6,393
Total number follow-up visits	2,711
To infants under 2 years	514
To children 2 to 7 years	412
To school children	1,785
Instructive	2,941
Social service	718
Conference	3,172
Not otherwise classified	1,424
Total number all visits	17,359
SPECIMENS COLLECTED:	
Urine	217
Feces	507
Sputum	35
Cultures taken	99
SCHOOLS INSPECTED:	
Schools inspected	755
Pupils inspected	23,565
Number pupils found defective	11,392
Total number of defects	28,114
Defective vision	3,248
Defective hearing	271
Other eye defects	333
Other ear defects	140
Defective nose and throat	9,312
Defective teeth	10,343
Defective otherwise unclassified	3,789
Communicable diseases	678
TUBERCULOSIS:	
Clinics	22
Cases examined	446
Cases found positive	76
Cases sent to sanatorium	11
MATERNITY-INFANCY-PRE-SCHOOL WORK:	
Prenatal conferences	9
Total attendance	341
Prenatal clinics	21
Total number examined	37
Child health centers established	7
Child health conferences	218
Total number examined	2,241
Number hours given to this work	5,704

EDUCATIONAL ACTIVITIES:	
Talks to school children	546
Attendance	24,141
Talks at public meetings	82
Attendance	5,357
Talks at club meetings	64
Attendance	1,853
Home nursing class groups	26
Number class meetings	194
Number enrolled	604
Certificates given	117
Midwifery class groups	156
Total number enrolled	2,031
Certificates given	275
Little Mothers' League groups	31
Enrolled	329
Nutrition class groups	3
Number enrolled	114
Health Crusade groups	88
Number enrolled	3,698
Exhibits at fairs	39
Attendance	59,500
Number pieces of literature distributed	38,952
Lectures, talks, etc. by others	97
Attendance	7,005
Moving pictures shown	1
Attendance	75
CORRECTIONS AND TREATMENTS:	
Orthopedic cases treated	43
Dental clinics	43
Number children treated	1,599
Children fitted with glasses	69
Adenoid and Tonsil clincs	15
Number children operated on	454
Vaccinations for small pox	23,021
Anti-typhoid inoculations	28,387
Toxin-anti-toxin doses given	2,261
Other treatments	650
CLASSIFICATION OF VISITS:	
Prenatal	2,655
Postnatal	7,968
Infants and pre-school children	5,656
Tuberculosis	3,088
Other communicable diseases	1,448
Other nursing visits	10,105
Total number nursing visits	30,920
Total number follow-up home visits	5,787
To infants under 2 years	2,010
To children 2 to 7 years	1,486
To school children	2,305
Instructive	10,897
Social service	3,704
Conference	6,268
Not otherwise classified	4,089
Total number of all visits	61,665
SPECIMENS COLLECTED:	
Urine	371
Feces	223
Sputum	703
Cultures taken	242
SCHOOL INSPECTION:	
Schools inspected	984
Pupils inspected	28,728
Number pupils found defective	12,429
Total number of defects	19,989
Defective vision	1,327
Defective hearing	181
Other eye defects	167
Other ear defects	60
Defective nose and throat	7,086
Defective teeth	7,264
Defective otherwise unclassified	3,438
Communicable diseases	466
TUBERCULOSIS:	
Clinics	121
Cases examined	1,118
Cases found positive	213
Cases sent to sanatorium	96

MATERNITY-INFANCY-PRE-SCHOOL WORK:

Prenatal conferences	145
Total attendance	1,160
Prenatal clinics	145
Total number examined	253
Child Health centers established	4
Child health conferences	446
Total number examined	9,227
Number of hours given to this work	9,643½

EDUCATIONAL ACTIVITIES:

Talks to school children	1,163
Attendance	40,530
Talks at public meetings	157
Attendance	11,139
Talks at club meetings	169
Attendance	4,971
Home nursing class groups	21
Number class meetings	112
Number enrolled	320
Certificates given	83
Midwifery class groups	104
Number enrolled	1,451
Certificates given	512
Little Mothers' League groups	26
Number enrolled	141
Nutrition class groups	5
Number enrolled	33
Health Crusade Groups	1,156
Number enrolled	5,783
Exhibits at fairs	12
Attendance, approximately	27,500
Pieces of literature distributed	34,947
Lectures, talks, etc. by others	87
Attendance	3,432
Moving pictures shown	530
Attendance	47,816

CORRECTIONS AND TREATMENTS:

Orthopedic Cases treated	102
Dental clinics	21
Number children treated	1,635
Children fitted with glasses	77
Adenoid and tonsil clinics	10
Number children operated on	355
Vaccinations for small pox	8,095
Anti-typhoid inoculations	3,955
Toxin-anti-toxin doses given	455
Other treatments	7,000

ANNUAL REPORT DEPARTMENT OF RURAL SANITATION AND COUNTY HEALTH WORK STATE BOARD OF HEALTH

L. A. Riser, M. D., In Charge

To the Chairman and Members of the Executive Committee, South Carolina State Board of Health:

Gentlemen: I herewith submit a narrative and statistical report of work done by the Department of Rural Sanitation and County Health Work during the year 1925:

The year 1925 brings to a close the thirteenth year of my service with the State Board of Health. It is the ninth anniversary of the organization of our first full time County Health Department. For more than eight years Orangeburg, our pioneer

county, has maintained a County Health Department. Fifteen other counties now follow in her footsteps, and more than fifty per cent of the rural population have health protection by their own County Health Departments. We have passed out of the experiment or demonstration stage. Our citizens realize the necessity for disease prevention in their counties. Now that the rural districts of our State are beginning to become more thickly populated it is more necessary than ever that an adequate local Health Department should be maintained in each county to prevent epidemics and reduce preventable disease to a minimum.

Greenwood and Spartanburg Counties made appropriations the first of the year. The City of Greenwood combined its Health Department with that of the county. Both of these counties were organized in April and both are now doing excellent work. With few exceptions we have the same personnel we had last year. Dr. Beachley was transferred from Dillon to Spartanburg County and Dr. Freed succeeded him in Dillon County. Dr. Martin was transferred from Colleton to Greenwood County and Dr. Echols succeeded Dr. Martin. Dr. MacDonald resigned in Fairfield County and was succeeded by Dr. Kennedy. Dr. Shealy resigned in Cherokee and Dr. Poole was transferred to Cherokee to succeed him. The counties of Marion, Beaufort and Georgetown work under the supervision of the Department of Malaria Control and their report is included in the report of that Department. The report which we render covers the work done in the other counties.

Educational:

The moving picture unit visited 26 counties in the State this year, gave 245 shows with an attendance of 50,305. Literature was given out, public lectures made, talks given to school children, classes in home care of the sick were instructed, circular letters were mailed out and 25,311 homes received a personal visit from some member of the County Health Department. The educational work which this and other Departments of the State Board of Health are doing in all parts of the State is showing results. This year 1,158 fewer deaths occurred than last year. The reduction of the deaths from intestinal diseases is particularly noticeable. The outstanding *increases* of deaths

will be found under Auto and General Accidents, Diseases of the Circulation and Influenza.

Life Extension Work:

A thorough physical examination was given the girls attending the short course at Winthrop College. The students at Limestone College were examined and all the Club Girls in Charleston County received a physical examination. All school children showing the need of a thorough physical examination are given this examination upon the consent of their parents. No parent so far has refused a complete physical examination for a child when requested by the Health Officer or the Nurse. Periodic physical examinations once a year for every citizen is being stressed in each county where there is a Health Department.

Home Sanitation:

One thousand, eight hundred and eighty-eight homes were sanitated. Every white school in Charleston County has installed sanitation approved by the County Health Department and every school in Colleton County has agreed to put in approved sanitation during the coming year. Four hundred seventy-four homes were screened, 1,674 food handlers were inspected, 2,300 feet of drainage inspected and 4,000 feet of ditching put in. Thirty-five homes were quarantined.

Laboratory Work:

Two thousand, nine hundred and ninety-six specimens of various descriptions were microscopically examined. Milk analysis have been made of milk from dairies supplying milk in Greenwood, Aiken and Newberry Counties.

Control of Contagious and Infectious Diseases:

Smallpox: We still have at intervals an outcropping of smallpox but the disease is kept under control by thorough vaccination. Our County Health Officers in the past five years have vaccinated 97,725 people. This year 24,787 were vaccinated.

Typhoid Fever: This disease is gradually decreasing. In the past five years our County Health Departments have given 203,300 anti-typhoid inoculations. For the past two years more than 90% have taken the three doses, necessary for complete immunization. This year 55,974 inoculations were given and 13,894 took the full three treatments.

Diphtheria: Small epidemics have occurred in nearly every county. Four thousand, eight hundred and eighty doses of toxin anti-toxin have been given and 42 doses of anti-toxin. As the supply of toxin anti-toxin furnished by the State was exhausted some months ago it has been necessary for the County Health Departments to buy their own toxin anti-toxin for preventive work.

Rabies: Hydrophobia seems to be on the increase. One thousand, one hundred and fifteen Pasteur treatments were administered by Health Officers this year to persons who had been bitten by rabid dogs. Ninety-seven dogs were given preventive treatment.

Tuberculosis: This disease is also gradually decreasing. Two hundred and seventy-seven cases of tuberculosis were investigated by county nurses. At the tuberculosis clinics held 483 suspected cases were examined and 163 new cases of tuberculosis found. We are finding more cases in the early stages than formerly by this method. Four hundred and ten other contagious and infectious diseases were investigated.

Dairy and Milk Inspection:

Great interest is being shown in the testing of cattle for disease, especially tuberculosis, and also the examination and improvement of milk supplies. In one county specimens of milk from each dairy in the county were examined for bacteria and butter fat once each week. These notices were published in the local paper and as a result each dairy has had to come up to the standard requirements. The initial examinations found most of the milk far below standard. Three counties maintain laboratories for milk examinations.

Medical Examination of School Children:

We are now taking the children in the lower grades for examination and are trying to make these examinations more thorough. It is only in the lower grades where serious defects which can be corrected are found. This year 22,476 pupils have been examined. We are having less difficulty in getting defects corrected. The children in whom defects have been corrected are showing results and this is convincing parents of the necessity of their co-operation. One hundred and ninety-eight chil-

dren have had tonsils and adenoids removed at the free clinics. Thirty-four have had serious eye defects corrected.

Child Welfare:

Nine hundred and seventy-one mothers have been instructed and 2,560 children were examined at these clinics. Several counties have established permanent Baby Welfare Clinics and they are being well attended. The midwife instruction is kept up by the nurses in the counties. All midwives are required to report at intervals for further examination and instruction. We have had Wassermanns made of all midwives and those found to have syphilis are treated, and are required to discontinue their practice. We are securing good co-operation from magistrates in some counties in helping us enforce this law.

We wish to thank the Board for their support of our County Health Work and urge them to continue to help us secure appropriations to establish new Departments.

A report of the Dental Department of the State Board of Health is appended.

The statistical report for the Department of Rural Sanitation and County Health Work follows:

STATISTICAL REPORT

Department of Rural Sanitation and County Health Work
South Carolina State Board of Health

Dr. L. A. Riser, Director

Constructive Work:

Septic Tanks installed	31
Pits installed	1,129
Buckets installed	40
Sewerage installed	545
Other types installed	143
Homes screened	474
Food Handlers inspected	1,647
Meat Markets inspected	153
Re-sanitations	165

Educational Work:

Lectures delivered	462
Attendance	36,126

Moving Picture shows	245
Attendance	50,305
Talks to school children	791
Children present	42,788
Clubs organized	27
Members enrolled	1,132
Literature distributed	67,213
Letters written (office)	10,466
Circular letters mailed	42,100
Homes visited by Director	4,551
Homes visited by Inspector	14,268
Homes visited by Nurse	6,492
Total homes visited	25,311

Laboratory Work:

Examined for hookworm	1,878
Infected	1,081
Treated	902
Other laboratory work	1,018

Sera and Vaccines:

Vaccinations (smallpox)	24,789
Vaccinations (whooping cough)	89
Inoculations (typhoid fever)	55,974
Number persons taking 3 inoculations	13,894
Inoculations (toxin-antitoxin)	4,880
Inoculations (antitoxin)	42
Pasteur treatments	1,115
Dogs inoculated	97

Contagious and Infectious Diseases:

Contagious diseases investigated	1,057
Typhoid cases investigated	377
Tuberculosis cases investigated	277
Other diseases investigated	410

Medical Examinations:

Schools visited	763
Schools examined	756
Pupils examined	22,476
Pupils defective	14,758

Defects	21,203
Defects corrected	1,534

Free Clinics

Tuberculosis Clinics:

Number examined	482
Cases found positive	163

Tonsil and Adenoid Clinics:

Operated on for diseased tonsils	198
Operated on for diseased adenoids	198

Dental Clinics:

Children examined	701
Children's teeth cleaned	78
Children's teeth extracted	95
Children's teeth filled	277

Child Welfare Clinics:

Number mothers instructed	971
Number children examined	2,560

Eye Clinics:

Children examined	93
Defects	77
Corrections	34

Midwife Classes:

Number classes organized	44
Number instructed	631
Home Hygiene Classes	120
Attendance	2,469
Mental Hygiene Clinics	16
Cows tuberculin tested	3,047
Number feet drainage inspected	2,300
Number feet ditching inspected	4,000
Quarantine established	35

ANNUAL REPORT OF STATE DENTAL CLINICS

E. A. Early, D. D. S., Director

To the Director, Department of Rural Sanitation and County Health Work, South Carolina State Board of Health:

Sir: I hereby submit a narrative and statistical report of the work done by the State Dental Clinics for the year 1925.

The correction of the dental defects of the children of South Carolina is a matter that bears directly on the future of the Nation, the growth of the State, the progress of the school and the health of the individual. It is, therefore, not a matter of importance for the moment but a matter of momentous importance and deserves every consideration. But to correct these defects and not teach the child how to prevent their future occurrence is to but half perform the duty. To give prevention, through education, the attention its importance warrants requires a larger appropriation than has heretofore been requested. This year each county in which a clinic has been conducted has been required to appropriate approximately $2,000.00. This sum has been appropriated by the county delegation and the superintendent of education in the county in which the clinic has been conducted. There being at present no State appropriation to cover this cost.

The school children in the counties in which the clinics have been conducted have been taught how to prevent oral diseases by means of lectures, pamphlets, posters, charts and tooth brush drills. In some counties tooth brushes have been supplied free of charge. In some counties the children have been sold a tooth brush, that normally retails for thirty-five cents, for ten cents. Tooth paste has been distributed in large quantities.

During the past year free clinics have been held in three schools in Greenville County, the expense being paid by the Victor Monaghan Co., of Greenville, S. C. A free clinic has been in progress in the city schools of Columbia since the beginning of the 1925 fall term of school. The City School Board having made an appropriation to cover the entire expenses of the clinic. The advantages of a free clinic over a pay clinic is clearly shown by 97% of the pupils of the rural schools patronising the clinic and 84% of the people of Columbia expressing a desire to have their children' work performed in the school clinic.

This is due to the fact that the people of the State have not been educated to the importance of the baby teeth and are not willing to invest, no matter how small the sum, in having the defects of the temporary teeth corrected.

During the past year clinics have been conducted in the following places:

Counties:

Darlington, Sumter, Aiken, Colleton, Orangeburg, Union, Laurens, Spartanburg, Florence, Lee, Barnwell, Marlborough, Fairfield.

Individual Schools:

City of Charleston,
City of Columbia,
City of Cheraw,
City of Camden,
Eastover School, Richland County,
Greer Mill School, Greenville County,
Appalache Mill School, Greenville County,
Victor Mill School, Greenville County,
Thornwell Orphanage, Clinton, S. C.,
Spartanburg County Fair.

During the summer clinics were conducted in the following:

Spartanburg County, Union County, Victor Mill School, Appalache Mill School, Greer Mill School and Thornwell Orphanage.

During the past year the Director has traveled over this and adjoining States in the interest of Dental Clinics. The Director has visited 38 counties and made 207 lectures to Dental Societies, Parent-Teacher Associations, Mothers Clubs, Improvement Associations, etc., on how to obtain a Dental Clinic and the importance of same.

The Director has attended the Pee Dee Dental Aassociation, the Fifth District Dental Society, the South Carolina State Dental Association, the South Carolina Medical Association, South Carolina Public Health Association, the American Dental Association at Louisville, Ky.

There were six clinicians working from Sept. 18th to the 25th, inclusive. During these days the American Dental As-

sociation was in session at Louisville, Ky. Every clinician except one, whose father was seriously ill, attended this convention. These six men, the Director and five clinicians gave South Carolina the largest representation of dentists engaged in public health work of any State in the Union.

The Director is now obtaining, thru the State Superintendent of Education, the percentage of children that failed to be promoted. It is estimated that this will be 25% of the average attendance. This is made on calculations made in this office to the present date and figures from other States. It is costing the State $68.31 per child according to average attendance (South Carolina School Directory 1924-25). By multiplying the number of failures by the cost per child according to average attendance it will be seen that thousands of dollars are spent each year with no result. It has been shown that a large percentage of these failures are due to dental defects. By correcting these defects money would be saved the State and years for the child. Is it not better?

STATISTICAL REPORT FOR THE DEPARTMENT OF DENTAL CLINICS FOR THE YEAR 1925

Number pupils examined	42,025
Number amalgam fillings	16,085
Number cement fillings	3,163
Number cleanings	6,577
Number extractions	4,881
Value of free work	$ 3,082.00
Amount collected	$12,271.00
Total earned	$15,343.00
Number tooth brush drills	511
Number lectures	883
Number present	25,638

E. A. Early, D. D. S.,
Director Dental Clinics.

ANNUAL REPORT OF HYGIENIC LABORATORY

Columbia, S. C.,
December 31, 1925.

The Chairman and Members of the Executive Committee, South Carolina State Board of Health:

Gentlemen: I have the honor to submit the following report of the work of the Hygienic Laboratory from January 1, 1925, to January 1, 1926.

1. *Quarters.* During the early summer the Laboratory was requested by the Board of Trustees of the University of South Carolina to move its quarters from LeConte College where it has been located since October, 1910. The move has not yet been made, there being no other suitable quarters available. If this removal is required, it is respectfully requested that your Committee see that ample provision be made for the Laboratory in the new State Office building now in course of erection.

2. *Personnel.* The personnel of the Laboratory staff remains the same as in previous years, with the addition to the staff on August 1, 1925, of Mr. M. J. Summerville, technician in charge of milk, water, and oyster analysis. The Director wishes to acknowledge the indebtedness of the Laboratory to the efficient work of each assistant.

3. *Diagnostic Tests.* Thirty-two thousand, four hundred and ninety-three tests have been made at the Laboratory during the year. Eighteen thousand and fifty-one of these tests were for the Wassermann reaction, 15.6% being positive for syphilis. Five hundred and eighty-nine animal brains were examined for rabies, 64% of them being positive. Eight thousand and sixty-eight Widal tests were made, and of the nine hundred twelve positive tests, 81% were positive for *B. typhosus* and 19% positive for *B. paratyphosus*. The laboratory records show approximately this same comparative percentage for the last eleven years. Most of the paratyphoid positives come from Williamsburg, Clarendon, Colleton, and Dorchester Counties. Out of five hundred and ninety-six specimens examined for malaria only three were positive. Eight hundred and eighty-three water samples were examined for the presence of the colon bacillus group, 30% being positive. Many of these samples, however, were from

rivers and inlets near oyster grounds. Five hundred and seven nose and throat cultures were examined for diphtheria bacilli, 17% giving positive results. Instead of sending out diphtheria culture media tubes to the physicians of the State, as heretofore, the Laboratory now sends out only sterile swabs and empty sterile test tubes in which to return swabs to the Laboratory, where the cultures are now made. This both saves culture media and renders the service more satisfactory.

4. *Antirabic Treatments.* This is another banner year for rabies, 1925 outstripping even 1924. One thousand and eighty-one patients received antirabic treatment during the year, 22,701 doses of antirabic vaccine having been sent out to date. The northwestern section of the State furnished 678 patients, the central section 253 patients, and the southeastern section 150 patients. Every county in the State was represented in this list. Three deaths from rabies occurred in the State during the year. Two of these patients, one a 7 year old colored boy from Marion County, the other a 7 year old colored boy from Florence County, did not take antirabic treatment. The third patient, a 7 year old white boy from Oconee County, though receiving treatment, died before the end of the period required for the development of immunity.

5. *Additional Work.* On August 1, 1925, the Laboratory added to its regular work the bacteriologic analysis of oysters, oyster bed water, and municipal water supplies, and the chemical and bacteriologic analysis of milk, under the charge of a technician specially trained in this work. To expedite and facilitate the examination of the State's local oyster supplies and the waters of the oyster bed areas, a boat, kindly loaned by the State Board of Fisheries, has been fitted up as a branch laboratory, and these examinations are now being made on board directly at these areas all along the coastal region of the State. M. J. Summerville, special technician of the Laboratory, and W. C. Weston, field engineer of the State Sanitary Engineering Department, are in charge of this work.

6. *Cost Per Test.* Valuing the 22,701 doses of antirabic treatments prepared at the Laboratory during the year as the equivalent of so many tests, this number added to the 32,493 diagnostic tests, gives a total of 55,194 tests or their equivalent. Di-

viding this number into the $11,773, the amount of the appropriation for the Laboratory expended during the year 1925, gives 21.3 cents as the cost of each test, lower by more than one-half than the cost ever reported by any other State Board of Health Laboratory.

7. *Typhoid-paratyphoid Bacterin.* One hundred and fifty-one thousand, four hundred and eight cubic centimeters of typhoid-paratyphoid bacterin have been sent out by the Laboratory during the year, an 18% decrease from last year.

8. *A summarized statement* of the work of the Laboratory is attached hereto.

Respectfully,

H. M. Smith, M. D.,
Director of Laboratory.

SUMMARY OF LABORATORY WORK FOR THE YEAR 1925

	Positive	Negative	Doubtful	Total
1. Blood:				
(1) Widal Tests:				
(a) B. typhosus	741	3,157	136	4,034
(b) B. paratyphosus	171	3,814	49	4,034
(2) Plasmodia	3	593	.....	596
(3) Cultures	.....	5	.....	5
2. Brain:				
(1) Negri bodies	379	210	.....	589
3. Chancre:				
(1) Spirochaeta pallida	1	1	.....	2
4. Milk:				
(1) Culture, B. coli	1	1	.....	2
(2) Analyses	4	43	.....	47
5. Nose and Throat:				
(1) Cultures, B. diphtheriae	87	420	.....	507
(2) Spirochaeta vincenti	.....	11	.....	11
(3) Miscellaneous	1	22	.....	23
6. Pus and Excreta:				
(1) Gonococcus	69	218	.....	287
(2) B. tuberculosis	.....	5	.....	5
(3) Staphylococcus	1	.....	.....	1
(4) Streptococcus	1	1	.....	2
(5) Miscellaneous	1	.....	.....	1
7. Spinal Fluid:				
(1) Meningococcus	.....	10	.....	10
(2) B. tuberculosis	1	3	.....	4
(3) Miscellaneous	1	.....	.....	1
8. Sputum:				
(1) B. tuberculosis	171	780	.....	951
(2) Miscellaneous	2	2	.....	4
9. Stools:				
(1) Parasites:				
(a) Ascaris lumbricoides	100	.....	.....	100
(b) Endamoeba coli	1	.....	.....	1
(c) Endamoeba histolytica	5	.....	.....	5
(d) Oxyuris vermicularis	2	.....	.....	2
(e) Taenia nana	14	.....	.....	14
(f) Taenia saginata	.....	1	.....	1
(g) Uncinaria	744	1,217	.....	1,961
(h) Miscellaneous	2	6	.....	8
(2) Cultures:				
(a) B. typhosus	.....	20	.....	20
(b) B. paratyphosus	.....	20	.....	20
10. Urine:				
(1) Cultures:				
(a) B. typhosus	.....	6	.....	6
(b) B. paratyphosus	.....	6	.....	6
(c) Miscellaneous	1	.....	.....	1
(2) Analyses	27	161	.....	188
(3) Miscellaneous	15	28	.....	43
11. Water:				
(1) Culture, B. coli	273	610	.....	883
(2) Miscellaneous	4	.....	.....	4
12. Oysters:				
(1) Culture, B. coli	7	51	.....	58
13. Miscellaneous:	2	3	.....	5
Total	2,832	11,425	185	14,442

14. Wassermann Tests:	++++	+++	++	+	±	−	AC	Total
Blood	2,128	380	305	414	279	14,184	181	17,871
Spinal Fluid	14	.....	.....	.....	7	159	.....	180
Total	2,142	380	305	414	286	14,343	181	18,051
G. Total	.....	.....	.....	.....	.....	.....	.....	32,493

15. Antirabic Treatments:

(1)	Complete treatments to December 31	1,021
(2)	Under treatment December 31	49
(3)	Treatments discontinued by request of patient	11
	Total	1,081
(4)	Treated at home	1,033
(5)	Treated at laboratory	48
		1,081

(6) Distribution of treatments according to Counties:

Abbeville 16	Chesterfield 19	Hampton 6	Oconee 29
Aiken 27	Clarendon 5	Horry 2	Orangeburg 29
Allendale 12	Colleton 12	Jasper 1	Pickens 5
Anderson 71	Darlington 23	Kershaw 6	Richland 51
Bamberg 17	Dillon 14	Lancaster 32	Saluda 1
Barnwell 5	Dorchester 13	Laurens 60	Spartanburg 118
Beaufort 8	Edgefield 16	Lee 1	Sumter 4
Berkeley 6	Fairfield 14	Lexington 7	Union 16
Calhoun 1	Florence 30	Marion 17	Williamsburg 3
Charleston 33	Georgetown 14	Marlboro 10	York 81
Cherokee 35	Greenville 168	McCormick 2	
Chester 19	Greenwood 26	Newberry 6	1,081

16. Typhoid-paratyphoid Bacterin:

(1)	Number of cubic centimeters sent out	151,408

ANNUAL REPORT SOUTH CAROLINA STATE BOARD OF HEALTH, ENGINEERING DIVISION 1925

During the first part of the year a re-organization in the engineering work of the State Board of Health was brought about and the engineering activities were consolidated under one department, to be known as the Engineering Division.

In addition to carrying on the activities that are principally of an engineering character, the collection of morbidity statistics was left in the Engineering Division because this work was an outgrowth of the collecting of data on malaria and because adequate facilities for collecting this data did not exist elsewhere.

The activities placed under this Division were specified as follows:

(a) Malaria Control Work and Investigations.
(b) Water and Sewage Sanitation.
(c) Shellfish Sanitation.
(d) Milk Sanitation.
(e) Collection of Morbidity Statistics and Related Data.

Due to the fact that the Appropriation Bill was not passed until near the middle of April and no funds for travel were available until after that time, most of the field work was done in the subsequent months.

The various activities are discussed under the headings outlined above.

Malaria

During the first part of the year hybernating habits of Anopheles mosquitoes were investigated in an effort to ascertain where most of the Anophelines go thru the winter. The subject is still in need of further study; not much light has yet been thrown upon its solution. Anopheline larvae were also collected and bred out to ascertain what species predominate. Our observations show that Crucians breed in all months of the year and seem to breed more profusely than either punctipennis or quadrimaculatus in this locality.

A house-to-house census was made of conditions in the Catawba River basin near the North Carolina line in an area which is to be flooded sometime this fall by the construction of a new

dam built by the Southern Power Company. This census disclosed that when the former dam was constructed on the river it was followed by an outbreak of malaria and also at the present time about ten per cent of the people living in the area gave a history of having had malaria within the past year or two. This provides enough latent malaria in the population to cause an outbreak if the number of Anopheles mosquitoes is greatly increased over the normal quantity prevalent in this section. The matter has been taken up with the Southern Power Company and they will exercise precautions to prevent an increase in the breeding of Anopheles. They are spending large sums of money in cutting out the timber and undergrowth so as to provide as little protection and shelter for mosquito larvae as possible when the pond is completed.

The table below shows the results of the malaria census taken along the Catawba River for a distance extending about ten miles south of the North Carolina boundary on both sides of the river. The conditions are typically rural. The topography is characteristic of the Piedmont Plateau with deeply eroded valleys in a red clay formation. The altitude above sea level is between 400 to 600 feet:

TABLE NO. 1

Name of District	No. Families	No. Persons	No. Cases
Bethel Township	26	126	12
Fort Mill Township	9	62	5
Forest Hill Section	26	135	6
Davis Section	4	25	0
Elizabeth Township	3	16	1
Totals	68	384	24

All of the cases reported on this survey occurred either in 1923 or 1924.

Inspections have been made from time to time of operations carried on by the Southern Power Company to comply with the regulations to govern the impounding of water in this State. The timber in the area to be flooded has practically all been cut out and removed, or has been burned on the spot. The small vegetation and grass underbrush, etc., has been cut and most of it burned. No minnow hatcheries have been established on the pond but it is reported that quantities have been transported from the Mountain Island Pond immediately upstream from

this pond. The total expense of cleaning the pond is reported to be about $500,000.

There are two impounded water projects in this State now; the one just mentioned and another one near Camden on the Wateree River. Near Camden, an existing dam has been raised six feet. This, of course, floods an additional area which will become a prolific breeding ground for Anopheles unless adequate precautions are taken. The people in the vicinity of Liberty Hill are particularly alarmed over the situation and have communicated with us with reference to this matter on several occasions. The matter has been taken up with the Southern Power Company.

The prevalence of malaria throughout the State has been investigated this year as in the past. Due to lack of time, the school census cards have not been tabulated as carefully this year as last, nor have as many cards been sent out. Much of the time of the office force was consumed in sending out weekly report cards for physicians to return to us reporting communicable diseases. The data obtained from the school census cards is of much practical value to the county health officer who is interested in controlling malaria in his county.

One of the biggest difficulties in doing county malaria work is to arouse proper interest on the part of the county health officer in the problem. The figures that we have compiled since March indicate that malaria cases far out-number those of any other communicable disease being reported, with the possible exception of Influenza. The number of malaria cases that have been reported to us by physicians on weekly report cards is as follows by counties, beginning the first week in March when this system of reporting was instituted:

Table No. 2

County	No. Cases	County	No. Cases
Abbeville	100	Calhoun	161
Aiken	320	Charleston	491
Allendale	477	Cherokee	73
Anderson	70	Chester	214
Bamberg	236	Chesterfield	143
Barnwell	276	Clarendon	204
Beaufort	112	Berkeley	417

Colleton	440	Lexington	326
Darlington	306	McCormick	36
Dillon	70	Marion	335
Dorchester	210	Marlboro	531
Edgefield	168	Newberry	268
Fairfield	138	Oconee	14
Florence	372	Orangeburg	783
Georgetown	718	Pickens	3
Greenville	87	Richland	974
Greenwood	54	Saluda	74
Hampton	455	Spartanburg	87
Horry	380	Sumter	367
Jasper	192	Union	87
Kershaw	259	Williamsburg	696
Lancaster	60	York	231
Laurens	76		
Lee	104	Total	12,195

The apparent inability of quadrimaculatus to breed in a pond in New Brookland has been under investigation a large portion of the summer. Last year it was observed that only crucians could be found in stables and in out buildings near the pond. The same phenomenon was observed this year. Adult quadrimaculatus were captured near Crystal Lake, a small pond near Columbia, and placed in screened containers in which water from the New Brookland Pond was placed. They deposited eggs on the water surface. A certain percentage of them hatched, but the larvae remained alive only for a day or two. This experiment has been repeated several times. It may be that the artificial nature of the experiment contributed to the failure of the mosquitoes to survive. We attempted to place a screened cage in the pond itself and placed adult mosquitoes in it, but due to the activity of pestiferous small boys the experiment proved a failure.

The roosting habits of Anophelines near breeding places was studied near the Weston and Brooker Pond at Cayce. Vertical and horizontal holes were constructed in earthen banks within a hundred feet of the water's edge. The number of mosquitoes in these shelters was observed on various occasions and at the same time numbers that could be caught in nearby stables about a thousand feet away were observed. Our studies seem to indi-

cate that on days when the humidity is low—in other words on dry, hot days—more mosquitoes can be found in the earthen caves than in the stables; but on days when the humidity is high —that is on warm, damp days, or on rainy days—more mosquitoes can be found in stables. It is a common observation that mosquitoes are more numerous during, and right after a rain, than at other times. The facts are probably that there are not many more mosquitoes but those that do exist are more active on wet days than on dry, hot days.

Malaria control work has been carried on and prosecuted to a successful completion at Harleyville and Branchville. At Harleyville many difficulties have interferred with the completion of the undertaking, but they have finally all been overcome and a satisfactory drainage system has been turned over to the town authorities.

A survey and an estimate of cost has been prepared at Greeleyville but the necessary funds for prosecuting this work have not been obtained. It is possible that the town authorities will provide such funds if the matter is kept before them and the advantages sufficiently urged upon them.

During the late summer, many mosquito complaints arose in various towns, most of them located in the Piedmont section. At Greenville and Greenwood mosquitoes were particularly annoying. Complaints also were received from Easley, Gaffney and Florence.

The usual methods of fighting pestiferous mosquitoes by oiling catch basins, street gutters and inspecting premises, did not give any relief. Prolific breeding of mosquitoes was discovered in sewage polluted streams near the cities in the Piedmont. The extremely low water in the streams, due to the prolonged dry weather, was responsible in large measure for the prolific breeding. The fact that rains did not occur at regular intervals to wash out the larvae in the streams made breeding so prolific that the mosquitoes became a serious annoyance. In some of the streams near Greenwood the health officer reports that when he dipped up a dipper of water from the stream, from one-fourth to one-half of the volume consisted of mosquito larvae. The oiling measures employed were not thoroughly and adequately done so that breeding was only checked but not stopped. On our recommendation, the vegetation was cut out from the streams

and oil was distributed from the center of the stream to both banks. After doing the work thoroughly in this manner breeding was stopped.

At Greer, where at one time serious complaints of mosquitoes arose, no difficulty was experienced this year. The health officer, Dr. Venning, was experienced in dealing with the mosquito situation and succeeded in suppressing the production of mosquitoes to such an extent that they did not become annoying.

At Beaufort, ten principal sources of Anopheline mosquitoes that contributed to malaria prevalence were located and controlled. The breeding places consisted of ponds which contained water during a large part of the breeding season. The control of breeding was brought about by the use of paris green and oil; the oiling being done in and near the city of Beaufort. The cooperation of property owners was satisfactory. Other breeding areas existed in the county but did not effect large centers of population. The infection is confined largely to the section around Hardeeville and Bluffton, and the section between Sheldon and Yemassee.

Blood smears were examined at Beaufort by the County Health Officer for physicians in this and the adjoining counties. The free use of quinine in malarious sections was advocated by the county health officer, but no funds were available for the treatment.

In Newberry County, the County Inspector succeeded in inducing property owners to do drainage work. He also made studies of the prevalence of Anopheline mosquitoes in various sections of the county and has considerable information with reference to the prevalence of various species of Anopheles in the county.

In Marion County, considerable drainage work was done in the vicinity of Sellars and other places in the county. At Sellars several ditches were constructed which relieved mosquito conditions very much. Oil was also distributed and paris green spread in a few instances. The use of quinine was advocated and cards containing instructions for the use of quinine were distributed. About 100 cases of malaria were reported from the county during the year.

In order to demonstrate the practical value of oiling, the health officer induced families to supply two jars. Into each he placed

mosquito larvae and pupae, placing in one of them a few drops of oil and leaving the other untouched. The jars were taken home and observed. This created considerable interest in the whole matter and oiling was more faithfully done probably than it would have been otherwise. Talks were delivered by the county health officer to groups of citizens collected in the vicinity of mosquito breeding places. The health officer reports giving 45 grains of quinine sulphate by mouth for three consecutive days without apparent results, and after that he gave intravenously 7½ grains of sodium cacodylate with a marked improvement resulting in a few hours.

In Charleston County the importance of educating people on malaria was stressed. Lectures were delivered to school children and demonstrations made by charts of the mosquito and the human cycles of the malaria parasites. The Standard Treatment was especially stressed. Pamphlets and literature describing malaria control work were distributed. A few of the larger ponds were stocked with top minnows. Due to the extremely dry weather many breeding places were entirely dry during a large part of the year.

In Darlington County a top minnow hatchery was started in the Pond Hollow section where malaria has prevailed seriously from year to year. Talks were given to school children and literature distributed.

In Spartanburg County the Sanitary Inspector on his visits to homes where contagious diseases existed, made a special investigation as to conditions about the premises which would cause the prevalence of mosquitoes and gave out information with reference to malaria. The importance of screening was stressed. The following statistics were submitted:—Homes inspected, 110; Homes screened, 42; Drainage ditches inspected, 2300 ft.; Septic tanks and other breeding places oiled.

In Cherokee County, where the former health officer of Marion County—one of the county health units under the supervision of the Engineering Division—is in charge of the Health Unit, a complete mosquito survey of the city of Gaffney was made. Both Anopheles and Culex mosquitoes were found in various places. Recommendations were made to the mayor and the city board of health with reference to the best methods of controlling the breeding in the various places.

A similar survey was made at Furnace Place, about eight miles from Gaffney. Recommendations for oiling and ditching were made.

A survey was also made of Peeple's Creek. Most of the breeding here was of Culeces except in a section near the railroad tressel, Anopheles and punctipennis were found. At the county fair exhibit material showing malaria control operations was placed in the booth.

In Greenwood County the unusually dry weather left little besides sewage flowing in the streams. In these streams large numbers of Culecines bred; the species predominating being Culex quinquefaciens. The unusual occurrence of Anopheles breeding in sewage contaminated streams was observed here. The Anopheles breeding did not appear to be profuse; certainly not when compared to the breeding of Culex. Educational work was done throughout the county, including exhibits at both white and colored fairs. A representative from the County Health Department stayed in the booth and discussed the screening of homes, proper methods of oiling and stocking ponds with top minnows, etc., with people who visited the booth.

In Richland County a large number of malaria cases are being reported. No full time health organization exists and no systematic efforts to deal with the situation have been undertaken. Efforts were made by this office to eliminate some breeding areas in the suburbs of Columbia where outbreaks of malaria occurred.

Efforts have been made to do special malaria work in the counties of Beaufort, Marion and Georgetown, where the county health units are under the supervision of the Engineering Division. Relatively less malaria occurs in Beaufort than in the other two counties; only that section of Beaufort County which is furtherest removed from the coast is moderately malarious. Near the coast drainage is good and mosquito breeding does not seriously prevail except in a few saucer shaped depressions, near which very few people live. The health officer and the nurse in Beaufort County are the same ones that we had last year; Dr. Meyer and Miss Davis. In the other two counties, a change of personnel has occurred. Neither the same doctor nor the same nurse remain in the county. In Marion County, Dr. Andrews, the health officer, assumed his duties in June. Both nurses are

new in the county. Miss Foreman assumed her duties in September and Miss Alford in October 1924. In Georgetown County, Dr. Moore and Miss Wham, the nurse, resigned, effective September 1st. In their places we have obtained the services of Dr. L. L. Williams of Marion, North Carolina, and Miss Sarah Smith of Spartanburg.

At Dillon, the drainage of the town has been accomplished partly thru the former county health officer's interest in malaria control work, and in drainage work.

In Orangeburg County, considerable interest has been aroused in some of the smaller towns, thru the assistance of the county health officer. Some of the larger plantation owners of the county have requested assistance and advice in drainage problems. Frequently advice is sought in order to improve the agricultural conditions of the land, and in some instances the health of the owner or of the tenants is the principal motive to inspire interest in the work.

In Aiken County, investigations have been made of roadside borrow pits to ascertain their causation of malaria. Not much malaria could be directly attributed to the borrow pits thus far, but if they were allowed to remain, they would become prolific breeders of Anopheles and would no doubt delay the day when the county would be free of malaria. The Highway Authorities have showed a willingness to remedy conditions.

An important factor in eliminating malaria from the county is arousing the interest of the county inspector in malaria control work. Unfortunately, few of the counties in the malarious sections of the State have county inspectors. The inspector in Newberry County has shown special interest in the work and has been successful in inducing private land owners to do drainage work, which eliminated much mosquito breeding.

The high turn-over among county health officers is a serious handicap to efficient work. Of the county health officers now employed in the State a very small percentage have been in the work their second year. The attractions in private practice soon deplete the ranks of experienced health officers because the salaries are not particularly attractive.

As in previous years we are reporting the number of malaria deaths per one hundred thousand population by counties for 1916-1924 inclusive:

TABLE No. 3

MALARIA DEATH RATE PER 100,000 BY COUNTIES 1916-1924

County	Rate	County	Rate
Oconee	.37	Fairfield	6.55
Greenville	.87	McCormick	7.44
Spartanburg	.825	Darlington	8.5
Laurens	1.82	Lee	9.1
Anderson	2.04	York	9.7
Greenwood	2.18	Kershaw	10.6
Saluda	2.43	Lancaster	10.8
Chesterfield	2.78	Horry	11.7
Pickens	3.14	Richland	12.3
Cherokee	3.2	Aiken	13.1
Chester	3.3	Newberry	14.9
Union	3.31	Barnwell	15.4
Dillon	3.5	Florence	17.6
Abbeville	3.68	Marlboro	17.8
Edgefield	5.57	Marion	18.1
Lexington	5.92	Dorchester	19.3
Sumter	19.3	Berkeley	31.5
Clarendon	20.	Beaufort	32.5
Williamsburg	22.1	Jasper	37.3
Bamberg	27.6	Colleton	47.2
Charleston	28.2	Calhoun	50.8
Orangeburg	28.6	Hampton	53.5
Allendale	30.	Georgetown	54.6

The number of malaria deaths for the entire State by years 1916-1924 and the death rate per 100,000 is as follows:

TABLE No. 4

Year	No. Deaths	Rate Per 100,000
1916	289	17.15
1917	287	17.01
1918	289	17.15
1919	301	17.78
1920	254	15.07
1921	201	11.92

1922	240	14.25
1923	102	6.08
1924	119	7.05

Complete figures for 1925 are not yet available but the returns thus far compiled indicate the lowest rate yet attained.

Water and Sewage Sanitation

Since the resignation of Mr. Filby, the work formerly carried on by him has been delegated to the Engineering Division.

Arrangements were made with the State Chemist and Bacteriologist whereby copies of water analysis were promptly furnished immediately after the analysis were made. Formerly these results were not available until published in the annual report at the end of the year. The new procedure makes it possible to assist the chemist and bacteriologist in correcting conditions responsible for the contamination of water supplies. Several specific instances of this occurred during the period under discussion.

At North Augusta, for instance, a quarterly examination of the water by the Chemist and Bacteriologist disclosed contamination. An investigation by the Engineering Department disclosed that on July 4th, in order to provide water for street sprinkling purposes, water from an additional supply which proved to be contaminated was pumped into the mains. After this was discovered, upon our advice, the distributing system was thoroughly flushed, the chlorinating dose at the regular supply was increased and the contamination promptly disappeared.

At Winnsboro quarterly examination of water also showed contamination. Investigations here show that the filter plant was not equipped with a chlorinating apparatus, whereas, the filter was capable of producing a water free from turbidity, it did not remove the bacteria completely, altho it improved the water considerably in this respect.

We have urged upon the Board of Public Works the purchase of a chlorinating apparatus and we have been unofficially advised that they have done so.

At Elloree a new water works was installed last year. The quarterly examination of the water disclosed contamination. The water here is obtained from wells 120 feet deep, cased

throughout. It is pumped into a covered reservoir on the ground surface in which it is pumped into the distributing system. The contamination here has not yet been explained unless it was caused at the time the pipes were laid. A temporary chlorinating apparatus was rigged up at the pumping station. The distributing system was thoroughly flushed and the water in it replaced with chlorinated water. Since then the water samples taken there have shown no contamination.

Several of the filter plants have had difficulty with air in the filters. The action of the filter was seriously interferred with because of accumulations of air underneath the sand. This accumulation was sufficient to cause bubbles of air to rise to the surface, causing the action of the filter to be interferred with. At first filter plant operators were of the opinion that the difficulty was due to the presence of algae, but microscopic examination of the sand and water did not show the presence of algae. It is probable that the air is introduced into the raw water by the low lift centrifugal raw water pump and mixed with the water. On passing thru the filter the small air bubbles combine and accumulate in the filter. These conditions occurred at both Newberry and Easley.

At Easley, the filter plant operator was instructed in making plant tests for turbidity, alkalinity, carbon dioxide, and hydrogenion concentration. It would be of considerable benefit to the operators of small filtration plants throughout the State, if all could be familiarized with these tests, which would result in better operation of filter plants and would no doubt save money unnecessarily spent for chemicals, would provide a better quality of water and would probably result in some changes in routine at the plant. It is planned to carry on some of this work during the coming year.

The sewerage situation at Greenville has been particularly acute during the summer. It was aggravated by the prolonged dry weather which reduced the flow in Reedy River to a minimum.

The sewage from all of Greenville and of the cotton mill villages surrounding Greenville, and several dye plants are discharged into this stream, which rises only a few miles north of the city. The sewage from some of the mills receives some treatment in settling tanks so that the coarser solids are retained in

the tanks, but much organic matter and fine solids in suspension are discharged to such an extent that the stream is unable to oxidize the sewage. The stench arising from Reedy River is very obnoxious, so that at Conestee, a mill village about ten miles below Greenville, odors are seriously annoying. The mill authorities found difficulty in obtaining a sufficient number of employees to operate the mill because of the stench in the mill and near the stream. The mill built a dam across the river some twenty years ago or more, when the quantity of sewage in the stream was very much less than it is at present. The owners of the mill have brought suit against the city for damages; the suit is now pending. The last Legislature authorized the creation of a Greater Greenville Sewerage Commission composed of five members appointed by the Governor upon the request of the county delegation and city officials, but provided it with no funds. Subsequently the county delegation provided funds to employ an engineering firm to formulate plans for providing sewers for the city and suburbs, and treat the sewage in a properly constructed sewerage treatment plant. The plans and report of the engineer have been completed and have been turned over to the Sewerage Commission, and our advice with reference to them has been requested and supplied.

The plans call for the construction of intercepting sewers and sewerage treatment works for the entire district. The total cost will be in the neighborhood of $800,000. The next session of the Legislature should provide the Commission with the necessary authority to obtain the funds for the construction of the most essential units at least.

At Spartanburg, plans were submitted providing for sewerage of a suburban development. The sewage from this development is to be treated in a settling tank until such time when the city will be able to provide public sewers and take the sewage into the city's system. The city discharges its sewage into Fairforest Creek; conditions in which are at times of low water almost as intolerable as in Reedy River.

Plans for the installation of water works and sewerage systems have been received for Landrum, and approval has been given, subject to modifications. At Landrum, it was proposed to discharge sewage into the Spartanburg water supply about 15 miles above the intake. We required the sewage to be settled

in septic tanks and the effluent treated in contact beds and provisions made to instal a chlorinating apparatus, if, at sometime in the future the State Board of Health deemed it advisable to require such treatment of the sewage. A long storage period is provided for Spartanburg's water supply and the water will be treated in a modern purification plant now under construction, so that the water consumers in the Spartanburg District will be adequately protected.

Advice was furnished the town of Leesville with reference to the location of sewage settling tanks and proposed location of wells for obtaining domestic water supply. Shallow wells will be dug and the water therefrom chlorinated.

The services of a laboratory technician were obtained during the period covered by this report, to assist in making examinations of water and oyster samples; also to examine milk and to assist in discovering typhoid fever carriers. The technician employed is Mr. Summerville, who has had a year or more experience in the laboratory of the Georgia Medical School at Augusta. This arrangement also makes it convenient to have water samples examined at the laboratory at Columbia.

The town of Lexington is proposing to instal water and sewage works and advice has been given the town with reference to the source of supply and the disposal of the sewage. It is contemplated to construct a water purification plant obtaining water from the stream flowing thru the eastern portion of the town. The sewage will be passed thru Imhoff tanks and discharged into the stream. Provision is made in the plans for its further treatment in either contact beds or filter beds. This sewage will enter Columbia's water supply only thirty or forty miles above the intake. Untreated sewage from the cotton mill now enters this stream. Lexington's water supply will be treated in a modern rapid and filtration plant and chlorinated.

A list of cotton mill villages which are supplied from public water supplies and from whom regular quarterly samples were not received was furnished to the State Chemist and Bacteriologist. A number of people obtain their water in this way and it is deemed advisable to exercise some supervision over the purity of the supply.

At Batesburg, investigation was made to ascertain whether certain proposed spring supplies could be used to supplement

the present water supply obtained from deep wells. It was found that the quantity of water available was so small as not to warrant the use of the springs.

A number of complaints pertaining to water and sewage were investigated.

School authorities were advised with reference to the construction of sewage facilities at school buildings. Assistance was rendered the building committee for the children's ward of the South Carolina Tuberculosis Association.

Data with reference to sanitary conditions in cotton mill villages was accumulated. One hundred seventy-five cotton mills with villages ranging from 6 houses to 660 houses were investigated. Most of this data was collected by Mr. Filby.

The total number of homes owned by the mills is very nearly 27,250 thus affecting a population when all homes are in service of approximately 165,000 people; the vast majority of which are white people. It is estimated that less than one per cent are negroes. These white people are the decendants of the original white settlers of the Western North Carolina-Tennessee-Kentucky mountains who have come from the hills to work in the mills. Thus the public health problem with regards to water supply and sewerage facilities is no small one for these mill operatives constitute 20 per cent of the white population of the State. Many of the mills and their villages are located in isolated places because of the water power that can be developed at these points. Thus many of the villages are not incorporated villages or cities but simply communities. The mill authorities furnish all the benefits of local small town or village providing water under pressure in many instances, sewerage in some cases, sidewalks, paved streets, schools, swimming pools, dairies, welfare workers, Y. M. C. A., hotels, stores, etc. In many instances city facilities are provided for very small communities. The average cotton mill village under private ownership and management provides better sanitation with some exceptions as regards water supply and sewage facilities than does the small town in South Carolina.

The table below shows the location of mills with reference to counties and also shows the villages that are located inside the city limits and those outside the city limits:

TABLE NO. 5

County	No. Mills	No. Mills In City Limits	No. Mills Partly Within City Limits	No. Mills Outside City Limits
Abbeville	2	2	.....	.....
Aiken	6	.....	.....	6
Anderson	16	5	1	10
Bamberg	1	1	.....	.....
Charleston	1	1	.....	.....
Cherokee	9	3	.....	6
Chester	5	1	.....	4
Chesterfield	1	.....	.....	1
Darlington	2	1	1	.....
Dillon	3	.....	.....	3
Edgefield	1	.....	.....	1
Fairfield	1	.....	.....	1
Greenville	25	6	1	18
Greenwood	6	2	1	3
Kershaw	2	.....	.....	2
Lancaster	2	.....	1	1
Laurens	6	3	.....	3
Lexington	3	1	1	1
Marion	1	1	.....	.....
Marlboro	3	1	1	1
Newberry	4	2	1	1
Oconee	5	2	.....	3
Orangeburg	2	2	.....	.....
Pickens	8	5	.....	3
Richland	4	2	1	1
Spartanburg	29	7	.....	22
Union	8	3	1	4
York	19	14	1	4
Total	175	65	12	98

Fifty-six per cent of all the mill villages are located outside of incorporated towns. Practically all the larger vilages are outside of incorporated places. The largest village listed—that of Pelzer—is outside. Other prominent large villages outside of city limits are Great Falls, Ware Shoals, Lockwood Greene Village at Lyman, Tucapau, Union-Buffalo at Buffalo, Piedmont, Judson, Duncan, and Brandon Villages at Greenville, Aiken Mill Village at Bath, and Graniteville Manufacturing Company Village at Langley.

These villages are larger than many of the small incorporated towns and cities of the State. Only one mill has incorporated its village into a town; that one being the mill at Whitmire. It is understood that this was done so that the municipality thus created could issue bonds for water supply and sewerage purposes. There are of course, some houses in Whitmire not owned by the mill but the majority are owned by the mill. Many mills are inside the incorporated limits because the city has extended the limits so as to increase the taxable property.

Only one case is known where a city allowed a mill to vote out of the city limits once they were in. That was the case of the Wateree Mill at Camden. Some mills that are listed "partly outside city limits" are mostly outside, as for example the Pacific Mill at Columbia—only about one-third of the village being inside the city limits.

In the table below the mills are grouped according to size:

TABLE NO. 6

HOUSES IN COTTON MILL VILLAGES IN SOUTH CAROLINA—1925

No. Houses in Village	Inside City Limits	Outside City Limits	Totals
Up to 50	17	14	31
51-100	16	23	39
101-150	13	22	35
151-200	4	7	11
201-250	8	6	14
251-300	6	12	18
301-350	1	5	6
351-400	..	1	1
401-450	..	2	2
451-500	..	3	3
501-600	..	2	2
601-700	..	1	1
Totals	65	98	163

7,824 houses are inside city limits.
17,029 houses are outside city limits.
2,390 houses are partly in city limits and partly outside.

27,243 houses in mill villages.

The average number of houses per mill is 155. Only 19 mills have villages of this size or over inside of city limits.

The number of houses obtaining water from different sources, both public and private are shown in the following tables:

TABLE NO. 7

A. Houses Supplied With Water Under Pressure:

Source of Supply	Water From Public Supply Furnished Houses In Mill Villages			Water From Private Supply Furnished Houses In Mill Villages			Total
	Inside City Limits	Outside City Limits	Partly Inside and Partly Outside City Limits	Inside City Limits	Outside City Limits	Partly Inside and Partly Outside City Limits	
Shallow wells	133	.....	.....	613	3,614	230	4,590
Deep wells	1,288	.....	176	856	3.099	263	5,682
Creek Filtered and Chlor.	3,556	3,817	1,523	253	2,840	.....	11,989
Springs	122	.....	.....	.....	1,160	.....	1,282
Creek—Filtered	.....	267	.....	.....	80	.....	347
Mountain Supply	150	.....	.....	.....	.....	.....	150
Infiltration gal.	.....	.....	.....	110	.....	.....	110
Combination	50	60	.....	.....	.....	.....	110
Total No. of houses supplied with water under Pressure	.....	.....	.....	.....	.....	.....	24,260

B. Houses supplied with water not under pressure:

No. houses inside city limits	803
No. houses outside city limits	1,982
No. houses in village partly in, partly outside city limits	198
Total number houses without water under pressure	2,983

There are 145,600 people supplied with water under pressure while about 17, 900 are dependent on dug or driven wells.

The sewage facilities provided at cotton mill villages is shown in the table below:

TABLE NO. 8

SEWAGE FACILITIES AT COTTON MILL VILLAGES IN SOUTH CAROLINA

A—SEWER CONNECTIONS

Villages inside city limits

3,143 houses in 21 villages on public sewer lines.

978 houses in 13 villages on private sewer lines.

Villages outside city limits

6,999 houses on private sewer lines.

Villages partly inside and partly outside city limits

331 houses on public sewer lines.

445 houses on private sewer lines.

11,896 houses provided with sewer connections.

Can Privies

B—PRIVIES

Villages inside city limits
925 houses.

Villages outside city limits
1,821 houses.

Villages partly inside and partly outside city limits
621 houses.

3,375 houses with can privies.

C—L. R. S. PRIVIES

Villages inside city limits
421 houses (in 5 villages).

Villages outside city limits
1,502 houses (in 8 villages).

Villages partly inside and partly outside city limits
490 houses (in 3 villages).

2,413 houses with L. R. S. Privies.

D—CHEMICAL CLOSETS

Villages inside city limits
225 houses.

Villages outside city limits
592 houses.

Villages partly inside and partly outside city limits
100 houses.

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917 houses with chemical closets.

E—PIT PRIVIES

335 houses with pit privies.

F—OPEN PRIVIES

Villages inside city limits
2,190 houses.

Villages outside city limits
5,110 houses.

Villages partly inside and partly outside city limits
737 houses.

8,037 houses with open privies.

SUMMARY

11,896 houses are connected to sewers.
3,375 houses have can privies.
2,413 houses have L. R. S. privies.
917 houses have chemical closets.
335 houses have pit privies.
8,307 houses have open privies.

27,243 Total.

Less than half of the houses are provided with sewer connections. Of the houses that have some type of privy, by far the largest number are provided with open privies—the most dangerous type. Efforts should be directed toward eliminating all of the privies as rapidly as possible. The cost of the proper operation of chemical closets and even of ordinary can privies nearly exceeds the interest on the investment necessary to instal a modern sewer system and is not nearly as satisfactory nor as safe.

It has been the experience of mill managers that the money put into a modern mill village provided with water and sewerage is a good investment because of the ease of obtaining competent and contented labor.

The following is a list of towns classified according to source of water supply:

Towns Supplied With Water From Deep Wells

Inman
Converse
Fountain Inn
Woodruff
Goldville
Heath Springs
McBee
Chesterfield
Timmonsville
Florence
Marion
Mullins
Johnston
Seminole Mills (Clearwater)

Williston
North
State Park
St. George
St. Matthews
Port Royal
Clover
Due West
Ninety Six
Clinton
Ridgeway
Kershaw
Bishopville
Lamar
Darlington
McColl
Latta
Edgefield
Aiken Mills (Bath)
Batesburg
Barnwell
Denmark
Eastover
Walterboro
Beaufort
Newberry

Towns Supplied With Water From Flowing Wells

Hartsville
Allendale
Fairfax
Estill
Hampton
Bamberg
Ehrhardt
Orangeburg
Smoaks
Manning
Meggetts
Lake City
Kingstree
Conway
Hilton Head

Towns Supplied With Water From Shallow Wells

Williamston
Honea Path
Pelzer Mills (Pelzer)
Bennettsville
Belton (Mill Village)
Leesville

Towns Supplied From Deep and Shallow Wells

Fort Mill
Belton
Clio
Dillon
Sumter
Georgetown

Towns Supplied With Water From Springs

Blacksburg
Greer
Cedar Springs
Glenn Springs
Shelton
Blenheim
Graniteville Mfg. Co. (Vaucluse)
Graniteville Mfg. Co. (Warrenville)
Langley Mfg. Co. (Langley)

Towns Supplied With Water From Surface Supply

Pickens
Westminster
Winnsboro
Camden

Towns Supplied With Water From a Collection of Springs

Aiken
Spalding Junction

Towns Supplied From Deep Wells and Surface Supply

Gaffney
Rock Hill
Spartanburg
Seneca
Calhoun
Anderson
Abbeville
Ware Shoals
Greenwood
Laurens
Whitmire
Union
Union Buffalo Mills (Buffalo)
Lockhart
Chester
Great Falls
Lancaster
Columbia
Charleston
Andrews
Duncans
Norris Cotton Mill (Cateechee)
Piedmont

Towns Supplied From Shallow Wells and Surface Supply

Walhalla
N. W. Junction
Liberty
Cheraw

Towns Supplied From Deep Wells, Shallow Wells and Surface Supply

York
Georgetown
Greenville
Easley

Towns Supplied With Water From Deep Wells and Springs

North Augusta

The following towns have water filtration plants:

Abbeville
Anderson
Andrews
Bamberg
Buffalo Mills
Camden

Charleston
Cheraw
Chester
Clemson College
Columbia
Easley
Gaffney
Georgetown
Great Falls
Greenville
Greenwood
Lancaster
Laurens
Lexington (Under construction)
Liberty
Lockhart
Newberry
Pickens
Rock Hill
Seneca
Spartanburg
Union
Ware Shoals
Westminster
Whitmire
Winnsboro
York

Chlorinating apparatus at following places as well as at filtration plants listed above:

Nort Augusta
Landrum (Under construction)
Leesville (Under construction)

SHELLFISH SANITATION

The last Legislature required the State Board of Health, with the Board of Fisheries, to exercise supervision over the purity of the product of the oyster industry, and provided no funds for this work. The Board of Fisheries provided us with boat transportation to the various shucking houses and canning factories. It has been necessary to go to additional expense, (1) in the laboratory, (2) to provide a technician to examine a large number of water and oyster samples that are collected, (3) for express charges on shipments and (4) to obtain additional equipment.

The field and laboratory methods employed by the Public Health Service were studies by the writer at Craney Island in July. Maps covering the oyster grounds were collected and in August the examination of water samples was begun. Mr. Weston has been instructed in the method of collecting samples. He has been assisted in this work by Mr. O. C. Hopkins of the Public Health Service. The largest part of the oyster industry is in the area between Beaufort and Savannah. The condition of the shucking houses was not satisfactory at first but all

showed a willingness to improve conditions and improvements were made in equipment and operation. The owners show a willingness to cooperate in any reasonable requirements. A meeting of oyster men was called in August, in Charleston, at which time proposed regulations were discussed. Later, copies were submitted to the oyster men for criticism before the regulations were adopted by the State Board of Health.

No serious objections were raised to the proposed regulations. A committee was appointed to formulate a procedure to follow in examining persons engaged in handling raw oysters. A satisfactory procedure has been worked out. Examination is required for typhoid fever carriers only of persons employed in handling raw oysters if a history of suspicious illness is obtained. Persons who handle oysters which are canned, during the process of which they are subjected to a temperature of 240 degrees for ten minutes, will not be required to be examined. The oyster men fear that making medical examination of their workers will seriouly interfere with obtaining labor, and this examination was, therefore, confined only to persons handling raw oysters. The facilities of the State Board of Health are not adequate either to examine everybody connected with the oyster industry, desirable as this might be. The Board adopted regulations with reference to the oyster industry at its October meeting.

It was discovered that without a laboratory on a small launch, the time required for making oyster and water examinations would be so great that the investigation could not be completed without delaying the issuing of certificates to such an extent that the oyster producers would be subjected to financial loss. The Board of Fisheries, therefore, placed at our disposal a 40 foot launch in which incubator, sterilizer and necessary shelving for glass ware was installed. The boat has been working in the vicinity of Beaufort and Bluffton principally, since the first week in December.

To date the total number of shucking houses examined is 17; number of water samples examined in Columbia 269; number of oyster and water samples examined on laboratory boat 39; number of miles traveled 6,000.

By tying the laboratory boat alongside the shucking house wharf and making examinations of the product of the shucking house the oyster producer is more readily convinced of the need

of carrying out the suggestions of our inspectors than if he does not have an opportunity to see what is being done. All the oyster producing areas which we examined were found satisfactory and the products of the shucking houses conformed to the standards prescribed by the Surgeon General's Committee.

MILK SANITATION

Circular letters have been sent to county health officers informing them of the standard milk ordinance which was adopted by the Board last year, and approved for adoption by municipalities.

Laboratory facilities have been provided to make milk examinations without cost to county health officers and others. The Metropolitan Life Insurance Company has been interested in the milk program and has offered to assist in creating favorable sentiment for the adoption of the standard milk ordinance in various towns. The local health officials at Aiken, Gaffney, Greenwood, Newberry and Florence have become interested in milk sanitation programs and have arranged to send samples of milk periodically to the laboratory for examination.

Arrangements have been completed with the United States Public Health Service whereby they will detail a milk specialist to the State early next year to assist in prosecuting this work. The need for closer supervision of our public milk supplies is manifest when one takes into consideration the high typhoid fever rate in this State. The possibility of milk supplies becoming contaminated thru typhoid fever carriers is disquieting if it is recalled that in one of the Southern States recently approximately four per cent of all people examined were found to be typhoid fever carriers.

In a typhoid fever outbreak in one of the larger cities in this State two years ago a large proportion of the cases were ascribed to contaminated milk supplies. If the same careful examination were made in some other cities in the State it is probable that at times similar results would follow.

Nearly all the cattle from which milk is obtained for larger towns have been tuberculin tested. To this fact a decline in the tuberculosis death rate in recent years is partially attributable.

The extent to which milk contributes to the prevalence of some of the diseases of childhood is not always clear because

of lack of accurate information on this subject, but judging from the experience elsewhere at times the milk supplies must play a part in spreading such diseases as scarlet fever, septic sore throat, tuberculosis, diphtheria, typhoid fever and paratyphoid fever and diorrahea infections.

COLLECTION OF MORBIDITY REPORTS

Beginning with the first week of March, the weekly collection of morbidity reports was begun by the Engineering Department. The previous reporting of communicable diseases has proved very unsatisfactory. The present system provides for sending out to each physician weekly, a card on which is listed twelve communicable diseases, and requesting the physician to report whether or not he has had any new cases in his practice during the week.

There are nearly 1100 physicians on our mailing list. Not all of them return cards each week. An average of 440 have been returned each week since the method was introduced. It is believed that over 90 per cent of the physicians report at least once a month, and that a very large per cent of the total number of communicable diseases are thus reported. Five follow-up letters have been mailed to physicians from time to time when they have been negligent in returning reports promptly. The fifth letter was mailed to only about 150 physicians who had not sent in any reports. Susbequent information showed that a number of these physicians had been dead for a number of years or were no longer in active practice.

The method of collecting these reports and the results obtained has attracted the attention of the Public Health Service. This was due to the sudden increase in the number of venereal diseases reported to the Public Health Service by the State Health Officer, after this system was adopted. The Public Health Service issued a news letter to State health authorities, calling their attention to the methods employed in South Carolina. As a result, inquiries have been received from State health authorities from Maine, Kentucky and Iowa, requesting information with reference to our system.

When this system was introduced we were in the midst of an epidemic of influenza in a mild form. The first week some 10,000 cases of influenza were reported. We were not aware of the existence of an influenza epidemic at the time. Later in the spring

an unusual prevalence of poliomyelitis was brought to our attention, altho poliomyelitis was not one of the diseases listed on the card.

In this way, the discovery of about 200 cases of poliomyelitis was made. As a result, Dr. Leake of the Public Health Service, spent two weeks here investigating the cases and instructing a special nurse in the best methods of taking care of patients. This nurse has visited over 100 of the cases and has furnished instructions with reference to the proper care of poliomyelitis patients. For cases in which information is available the following data is submitted:

TABLE No. 9

POLIOMYELITIS

Onset Date	No. Cases
April 24 (Greenville)	1
April 25 (Clover)	1
May 1	6
May 10-20	10
May 22-31	19
June 1-10	20
June 11-20	19
June 21-30	12
July 1-10	13
July 11-20	9
July 21-31	3
August 1-10	5
August 11-20	2
August 21-31	4
September 13	1
Total	125

In only 125 cases out of about 205 reported cases was the date of onset ascertained. The age grouping for these 125 cases is as follows:

TABLE No. 10

Age	No. Cases	Per Cent
0- 4	78	62.4
5- 9	33	26.4
10-14	8	6.4
15-19	1	0.8
20-24	2	1.6
Unknown	3	2.4
Totals	125	100.0

The number of cases grouped by counties is as follows:

TABLE No. 11

County	No. Cases	County	No. Cases
Abbeville	1	Greenwood	5
Aiken	4	Horry	2
Anderson	1	Kershaw	2
Bamberg	2	Lancaster	1
Barnwell	3	Laurens	2
Calhoun	3	Lexington	7
Charleston	8	McCormick	1
Cherokee	4	Marion	6
Chester	5	Newberry	8
Chesterfield	11	Orangeburg	6
Clarendon	1	Richland	4
Colleton	2	Saluda	6
Darlington	10	Spartanburg	26
Dillon	2	Sumter	5
Dorchester	2	Union	15
Edgefield	1	Williamsburg	7
Florence	11	York	20
Georgetown	1		
Greenville	6	Total	201

Most of the cases occurred in the Piedmont section of the State. The Coastal Plain section reported less than the Piedmont. A larger number of cases occurred among white children

than among colored children. To this fact may possibly be ascribed the fact that more cases occurred in the Piedmont than in the Coastal Plain section because most of the negroes are in the Coastal Plain section. In 3 instances was more than one case reported from one family.

A news bulletin based on reported cases of communicable diseases has been prepared at intervals and was sent to the leading news papers in the State. In this news letter the number of diseases reported during the previous week was given and occasionally a story describing some activity of the State Board of Health was added so as to familiarize the people of the State better with the public health work that is being carried on.

A summary of reported cases by months appears in the table below:

TABLE NO. 12

COMMUNICABLE DISEASES REPORTED FOR 10 MONTHS MARCH-DECEMBER INCLUSIVE

Disease	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
Dengue	5	7	3	1	8	11	29	36	14	11	125
Diph.	74	67	54	51	99	138	237	299	186	154	1,359
Gonor.	767	696	957	880	969	822	916	1,046	728	527	8,308
Malaria	551	619	1,321	1,647	2,037	1,679	1,685	1,642	686	328	12,195
Scarlet Fever ..	50	28	44	20	26	29	41	73	77	64	452
Smallpox	183	129	163	101	64	14	7	34	25	24	744
Syphilis	499	443	497	551	513	465	422	568	388	318	4,664
Typhoid	73	85	269	518	528	393	287	238	135	104	2,630
Tubercu.	288	274	311	296	264	217	176	235	144	127	2,332
Measles	27	18	39	23	76	5	19	7	22	34	270
W. Cough	560	664	933	626	462	250	187	235	216	137	4,270
Influ.	10,228	3,962	1,495	447	226	179	190	677	1,574	1,960	20,938
Totals	13,305	6,992	6,086	5,161	5,272	4,202	4,196	5,090	4,195	3,788	58,287

From a study of the data available from the weekly reports the number of cases of typhoid fever reported from the various counties and the computed case rate per hundred thousand is given in the table below:

TABLE NO. 13

County	No. Cases	Rate Per 100,000
Abbeville	52	191.5
Aiken	63	137.8
Allendale	122	761.0
Anderson	123	161.5
Bamberg	79	481.0
Barnwell	109	572.0
Beaufort	17	76.1
Berkeley	41	182.0
Calhoun	26	141.8
Charleston	50	46.1
Cherokee	33	119.9
Chester	40	120.1
Chesterfield	66	207.0
Clarendon	25	71.7
Colleton	19	63.5
Darlington	54	137.8
Dillon	25	98.7
Dorchester	37	192.5
Edgefield	48	200.5
Fairfield	6	22.1
Florence	105	208.5
Georgetown	45	207.5
Greenville	186	210.5
Greenwood	48	134.5
Hampton	22	112.2
Horry	16	48.9
Jasper	14	142.0
Kershaw	40	136.3
Lancaster	29	101.2
Laurens	66	154.5
Lee	33	123.5
Lexington	74	207.0
McCormick	35	213.5
Marion	72	302.0
Marlboro	36	108.8
Newberry	41	161.0
Oconee	39	129.5
Orangeburg	144	222.0
Pickens	49	172.5
Richland	106	135.6
Saluda	14	63.3
Spartanburg	195	206.5
Sumter	66	152.0
Union	13	42.4
Williamsburg	55	142.5
York	52	102.6
Total and Average	2,630	155.0

This data is incomplete, being only for the last ten months of the year.

The system of weekly reportings has been of great value to health work. Some of the things it has accomplished are:

1. The weekly stories carried by the news papers has stimulated public interest in the health welfare of the State.

2. It has lead to the discovery of an epidemic of infantile paralysis and the institution of measures to minimize the damage done to many victims of the disease.

3. It disclosed the existence of an epidemic of influenza in a mild form—rarely followed by pneumonia.

4. It provides county health officers with better information with reference to the prevalence of communicable diseases in their counties than has existed heretofore; thus enabling them to take preventive measures against the spread of communicable diseases.

5. It disclosed during the latter part of the year the beginning of an epidemic of typhoid fever. Subsequent investigation showed this to be the first water bourne epidemic of typhoid fever of which we have knowledge in this State.

6. It provides a mass of figures useful to State and local health authorities and to the Federal health authorities with reference to the prevalence of diseases and the effectiveness of health measures.

The usefulness of the system will, it is hoped, be still further increased by adding other diseases to the list and providing for returning the cards directly to the county health officers in counties that have full time health units, and by them forwarded to the State Health Officer, thus giving the local health officers earlier information than they now can get.

Assistance was rendered in making routine inspections of State institutions, hospitals, schools, etc., and advisory assistance rendered school authorities with reference to sanitation of school properites, complaints investigated, etc.

Mr. A. E. Legare was appointed to the position vacated by Mr. E. L. Filby; appointment confirmed by the Board at their June meeting.

The personnel of the Engineering Division during the year has consisted of the following:

Acting Chief Engineer, L. M. Fisher.
Malaria Epidemiologist, R. G. Hamilton, M. D.
Sanitary Engineer, A. E. Legare.
Field Worker, William Weston.
Field Worker, P. G. Masell.
Stenographer, Mary Dorn.

Respectfully submitted,

L. M. Fisher.
Associate Sanitary Engineer,
U. S. Public Health Service.

REPORT OF BUREAU OF VITAL STATISTICS

February 17, 1926.

Dr. James A. Hayne, Columbia, S. C.

My dear Doctor: Herewith please find reports for births, deaths and diseases thru December. This is not an accurate statement of the year's work, for I will probably get in a thousand delayed births and between a hundred and two hundred death certificates which would change the rates on all.

I usually make up the yearly report about June, and even after that delayed certificates come in. I will a little later give you the number of deaths from Tuberculosis, Typhoid Fever, Malaria, Pellagra for the different counties thru December.

Sincerely yours,

C. W. MILLER.

TOTAL NUMBER OF BIRTHS AND DEATHS IN SOUTH CAROLINA FOR THE YEAR, 1925

	BIRTHS		DEATHS	
	Number	Rate	Number	Rate
Abbeville	637	22.8	327	11.7
Aiken	1,153	24.2	526	10.8
Allendale	495	30.3	223	13.8
Anderson	2,169	27.1	845	10.5
Bamberg	624	28.-	262	11.7
Barnwell	549	23.6	228	9.8
Beaufort	607	27.1	451	20.1
Berkeley	707	31.2	367	16.3
Calhoun	528	27.2	222	11.5
Charleston	2,558	22.-	2,082	17.9
Cherokee	892	31.5	359	12.7
Chester	749	21.-	372	10.4
Chesterfield	1,081	30.9	418	11.9
Clarendon	822	22.6	357	9.8
Colleton	656	21.6	287	9.5
Darlington	1,113	27.2	502	12.3
Dillon	778	28.-	252	9.5
Dorchester	529	26.-	256	12.6
Edgefield	542	22.-	237	9.6
Fairfield	785	27.8	288	10.6
Florence	1,654	28.2	908	15.5
Georgetown	662	30.4	373	17.2
Greenville	2,539	25.4	1,112	11.-
Greenwood	721	19.6	443	12.-
Hampton	419	21.2	206	10.5
Horry	1,052	30.-	369	10.6
Jasper	284	28.7	139	14.-
Kershaw	790	25.8	329	10.7
Lancaster	676	22.8	276	9.3
Laurens	1,039	24.2	518	12.-
Lee	672	17.8	324	11.7
Lexington	901	23.9	365	9.7
McCormick	312	18.4	154	9.-
Marion	612	24.-	281	11.-
Marlboro	1,003	29.2	447	13.-
Newberry	839	23.2	365	10.1
Oconee	857	27.-	311	9.8
Orangeburg	1,862	26.6	827	11.8
Pickens	965	32.2	276	9.3
Richland	1,888	20.7	1,553	17.-
Saluda	396	17.4	149	6.7
Spartanburg	2,628	26.2	1,102	11.-
Sumter	1,255	27.5	719	15.8
Union	800	26.2	277	9.1
Williamsburg	965	24.8	446	11.4
York	1,359	26.-	578	11.1
Total Births and Deaths	45,124	25.3	21,702	12.2

Infant Mortality 4,110, Rate 91.- Per M. Births.

DEATHS FROM THE FOLLOWING DISEASES FOR THE YEAR, 1925, IN THE STATE OF SOUTH CAROLINA

ATTENDED BY DOCTORS	Number	Rate
Tuberculosis, Pulmonalis	1,223	68.6
Tuberculosis, Other Forms	95	5.3
Pellagra	356	20.—
Diphtheria	103	5.8
Scarlet Fever	5	.3
Measles	2	.1
Typhoid Fever	382	21.4
Small Pox	4	.2
Cancer and Malignant Tumors	624	35.—
Malaria	92	5.2
Meningitis, Cerebro Spinal	32	1.8
Whooping Cough	74	4.2
Pneumonia	1,020	57.3
Pneumonia, Broncho	623	35.—
Pneumonio, Hypostatic	14	.8
Pleurisy	9	.5
Circulation, Diseases of	4,207	236.—
Kidney, Diseases of	1,578	88.5
Syphilis	46	2.6
Syphilis, Congenital	50	2.8
Tetanus	23	1.3
Tetanus, Meonatorum	12	.7
Dysentery	133	7.5
Dysentery, Amebic	7	.4
Scurvy	.....	.....
Intestinal Diseases	1,017	57.—
Erysipelas	12	.7
Homicide	220	12.4
Suicide	56	3.1
Auto Accidents	185	10.4
Railroad Accidents	57	3.2
General Accidents	322	18.1
Lightning	33	1.9
Legal Electrocutions	2	.1
Poliomyelitis	37	2.1
Influenza and La Grippe	296	16.6
Encephalitis, Lethargic	30	1.7
Alcoholism	27	1.5
Diabetes	107	6.—

DEATHS FROM THE FOLLOWING DISEASES FOR THE YEAR, 1925, IN THE STATE OF SOUTH CAROLINA

UNATTENDED BY DOCTORS	Number	Rate
Cancer and Malignant Tumors	76	4.3
Diseases of Circulation	437	24.6
Diabetes	.....	.....
Diphtheria	12	.7
Dysentery	66	3.7
Encephalitis	.....	.....
Homicide	.....	.....
Influenza and La Grippe	96	5.4
Intestinal Diseases	200	11.2
Kidney Diseases	194	10.8
Malaria	67	3.8
Measles	.....	.....
Meningitis, Cerebro Spinal	1	.06
Pellagra	52	2.9
Pneumonia	283	15.9
Pneumonia, Broncho	11	.6
Poliomyelitis	.....	.....
Small Pox	1	.06
Suicide	.....	.....
Tetanus	.....	.....
Tuberculosis, Pulmonalis	292	16.4
Tuberculosis, Other Forms	8	.5
Typhoid Fever	66	3.7
Whooping Cough	58	3.3

DEATHS IN SOUTH CAROLINA ACCORDING TO RACE AND COLOR FOR THE YEAR, 1925

	White Male	Black Male
Under 1 year	859	1,382
1 to 5 years	349	450
5 to 10 years	84	125
10 to 20 years	208	419
20 to 30 years	271	669
30 to 40 years	278	551
40 to 50 years	340	676
50 to 60 years	492	705
60 to 70 years	675	614
70 to 80 years	786	503
Over 80 years	273	363
Unknown	21	32
Totals	4,636	6,489

DEATHS IN SOUTH CAROLINA ACCORDING TO RACE AND COLOR FOR THE YEAR, 1925

	White Female	Black Female
Under 1 year	702	1,182
1 to 5 years	248	414
5 to 10 years	69	161
10 to 20 years	165	540
20 to 30 years	287	948
30 to 40 years	297	810
40 to 50 years	302	758
50 to 60 years	301	585
60 to 70 years	482	471
70 to 80 years	627	390
Over 80 years	422	367
Unknown	19	30
Total	3,921	6,656

WHITE AND NEGRO BIRTHS AND DEATHS FOR THE YEAR, 1925

BIRTHS

	Number	Rate
White Births	22,246	24.8
Negro Births	22,765	25.8

DEATHS

	Number	Rate
White Deaths	8,557	9.5
Negro Deaths	13,145	14.9

INFANT MORTALITY IN THE FOLLOWING COUNTIES IN SOUTH CAROLINA FOR THE YEAR, 1925

Abbeville County	59
Aiken County	99
Allendale County	42
Anderson County	176
Bamberg County	50
Barnwell County	24
Beaufort County	64
Berkeley County	63
Calhoun County	41
Charleston County	396
Cherokee County	81
Chester County	63
Chesterfield County	128
Clarendon County	80
Colleton County	50
Darlington County	123
Dillon County	85
Dorchester County	54
Edgefield County	35
Fairfield County	59
Florence County	191
Georgetown County	57
Greenville County	200
Greenwood County	63
Hampton County	47
Horry County	71
Jasper County	21
Kershaw County	51
Lancaster County	67
Laurens County	91
Lee County	80
Lexington County	73
McCormick County	18
Marion County	51
Marlboro County	110
Newberry County	66
Oconee County	62
Orangeburg County	184
Pickens County	64
Richland County	169
Saluda County	23
Spartanburg County	220
Sumter County	128
Union County	42
Williamsburg County	77
York County	112
Total	4,110

DEATHS FROM TYPHOID FEVER IN THE FOLLOWING COUNTIES IN SOUTH CAROLINA IN THE YEAR 1925

	Attended by Doctors	Unattended by Doctors
Abbeville County	3	..
Aiken County	8	3
Allendale County	14	2
Anderson County	14	..
Bamberg County	11	3
Barnwell County	17	..
Beaufort County	5	10
Berkeley County	..	7
Calhoun County	4	..
Charleston County	18	2
Cherokee County	5	..
Chester County	5	..
Chesterfield County	11	..
Clarendon County	6	2
Colleton County	2	2
Darlington County	11	5
Dillon County	4	..
Dorchester County	6	5
Edgefield County	1	1
Fairfield County	3	..
Florence County	25	..
Georgetown County	2	2
Greenville County	28	..
Greenwood County	11	..
Hampton County	9	3
Horry County	2	1
Jasper County	1	..
Kershaw County	6	..
Lancaster County	3	..
Laurens County	16	..
Lee County	13	2
Lexington County	10	2
McCormick County	6	..
Marion County	3	..
Marlboro County	5	5
Newberry County	5	..
Oconee County	5	..
Orangeburg County	24	2
Pickens County	4	..
Richland County	13	2
Saluda County	2	..
Spartanburg County	19	..
Sumter County	8	2
Union County	2	1
Williamsburg County	5	2
York County	7	..
	382	66

DEATHS FROM TUBERCULOSIS, ALL FORMS, IN THE FOLLOWING COUNTIES IN SOUTH CAROLINA IN THE YEAR 1925

	Attended by Doctors	Unattended by Doctors
Abbeville County	14	2
Aiken County	32	8
Allendale County	15	4
Anderson County	50	2
Bamberg County	11	4
Barnwell County	15	3
Beaufort County	12	22
Berkeley County	8	17
Calhoun County	13	7
Charleston County	126	14
Cherokee County	34	..
Chester County	30	7
Chesterfield County	23	5
Clarendon County	15	26
Colleton County	6	10
Darlington County	32	9
Dillon County	17	4
Dorchester County	9	3
Edgefield County	16	7
Fairfield County	11	8
Florence County	48	7
Georgetown County	16	9
Greenville County	77	2
Greenwood County	27	2
Hampton County	11	2
Horry County	5	23
Jasper County	9	5
Kershaw County	18	3
Lancaster County	24	5
Laurens County	35	4
Lee County	26	8
Lexington County	16	4
McCormick County	4	4
Marion County	18	1
Marlboro County	23	5
Newberry County	27	..
Oconee County	20	1
Orangeburg County	40	11
Pickens County	21	1
Richland County	143	9
Saluda County	13	3
Spartanburg County	81	1
Sumter County	52	6
Union County	16	4
Williamsburg County	22	14
York County	37	4
	1,318	300

DEATHS FROM MALARIA IN THE FOLLOWING COUNTIES IN SOUTH CAROLINA FOR THE YEAR 1925

	Attended by Doctors	Unattended by Doctors
Abbeville County	..	..
Aiken County	2	..
Allendale County	1	..
Anderson County	..	..
Bamberg County	..	..
Barnwell County	..	1
Beaufort County	1	10
Berkeley County	3	12
Calhoun County	2	2
Charleston County	8	22
Cherokee County	1	..
Chester County	..	..
Chesterfield County	1	..
Clarendon County	1	..
Colleton County	5	6
Darlington County	1	1
Dillon County	..	..
Dorchester County	..	..
Edgefield County	..	..
Fairfield County	..	..
Florence County	9	..
Georgetown County	1	..
Greenville County	..	3
Greenwood County	1	..
Hampton County	1	..
Horry County	2	1
Jasper County	2	1
Kershaw County	4	..
Lancaster County	..	..
Laurens County	..	..
Lee County	1	..
Lexington County	1	..
McCormick County	1	..
Marion County	3	1
Marlboro County	4	1
Newberry County	2	..
Oconee County	..	..
Orangeburg County	19	1
Pickens County	..	..
Richland County	7	1
Saluda County	..	..
Spartanburg County	2	..
Sumter County	2	..
Union County	..	1
Williamsburg County	3	4
York County	1	..
	92	68

DEATHS FROM PELLAGRA IN THE FOLLOWING COUNTIES IN SOUTH CAROLINA FOR THE YEAR 1925

	Attended by Doctors	Unattended by Doctors
Abbeville County	10	1
Aiken County	6	1
Allendale County	1	..
Anderson County	13	..
Bamberg County	3	..
Barnwell County	3	..
Beaufort County	2	1
Berkeley County	3	7
Calhoun County	3	..
Charleston County	39	2
Cherokee County	3	..
Chester County	10	1
Chesterfield County	2	3
Clarendon County	1	2
Colleton County	..	1
Darlington County	9	2
Dillon County	6	1
Dorchester County	3	1
Edgefield County	4	1
Fairfield County	5	..
Florence County	10	..
Georgetown County	4	2
Greenville County	12	1
Greenwood County	19	2
Hampton County	..	..
Horry County	1	3
Jasper County	..	1
Kershaw County	8	3
Lancaster County	8	1
Laurens County	11	2
Lee County	6	..
Lexington County	2	..
McCormick County	4	2
Marion County	9	..
Marlboro County	3	2
Newberry County	2	1
Oconee County	3	..
Orangeburg County	8	1
Pickens County	4	1
Richland County	52	1
Saluda County	..	..
Spartanburg County	22	1
Sumter County	9	..
Union County	4	..
Williamsburg County	7	4
York County	22	..
	356	52

SOUTH CAROLINA SANATORIUM

State Park, S. C., December 1, 1925.

To the Chairman and Members of the Executive Committee, South Carolina State Board of Health:

Gentlemen: The eleventh annual report of the South Carolina Sanatorium is herewith submitted.

In the white department 170 patients have been treated: 64 men and 106 women. Today we have 61 women classified as follows: minimal 3; moderately advanced 35; far advanced 23; and 37 men whose classification is:—moderately advanced 16; far advanced 21. Nine are quiescent; 54 improved, 23 not improved, while 12 have been under observation less than a month. Eighteen have died. Of 54 discharged the classification was, minimal 1; moderately advanced 40; far advanced 10; non-tuberculous 3. Of those discharged 24 were apparently quiescent; 22 improved; 5 not improved.

The following tuberculous complications have occurred:—laryngitis 19; pulmonary hemorrhage 18; fistula 3; pleurisy with effusion 3; otitis media 4; cervical adenitis 1; knee joint 1; epididymitis 1; phlebitis 1; meningitis 4; miliary tuberculosis 1; while the following non-tuberculous complications were observed: Pellagra 3; syphilis 3; infectious jaundice 1; nephritis 1; old poliomyelitis 1; incarcerated hernia 1; chronic spondylitis 1; unciniariaasis 1; empyema 1.

In the negro department 68 patients received treatment. Of these 27 were women and 41 were men. There were 26 deaths. The classification of 20 discharged was: moderately advanced 11; far advanced 7; non-tuberculous 1; unclassified 1. Their condition was: quiescent 3; improved 8; progressive 7. We now have 21 patients—11 women, 10 men; classified as follows: moderately advanced 7; far advanced 14. Their condition is: quiescent 1; improved 10; not improved 10.

The following complications were observed: hemorrhage 12; laryngitis 3; crevical adenitis 2; syphilis 4; mental aberration 1.

The total number of hospital days for whites was 33.087; for negroes, 7886, making a grand total of 40,973. In the two departments there were vacancies amounting to 4072 hospital days —or an average of 11 beds per day.

In addition to the general treatment of rest, good food and fresh air, selected patients have received pneumothorax. A total of 147 treatments have been administered to seven patients in the sanatorium and three out-patients who began pneumothorax treatment elsewhere. It is a very valuable procedure. The use of sunlight has not been overlooked. It has proved valuable in adenitis, discharging sinuses, bone and laryngeal cases. An Alpine lamp with a portable quartz light for the treatment of tuberculous throats is needed.

Dr. H. B. Hair has served as dentist the past year. Each new patient is seen by him and all urgent work attended to. There is great need for more time in this department. If possible, we would like to have a morning each week instead of every two weeks. The opening of the Children's building will probably double the amount of dental work.

The opening of an infirmary for white women on April 1st doubled the capacity for bed patients. The type of cases admitted requires more nursing and medical care, consequently we were unable to assist with the tuberculosis clinics as has been our custom. However, examinations to the number of 209 have been made for citizens of the State who have applied at the sanatorium.

A refrigerating plant, which makes 1250 pounds of ice in 12 hours, cools two rooms each 5ft. x 7ft. x 8ft.; the service refrigerator in the pantry and 25 gallons of water to 40 degrees per hour, has been installed. It is proving a great convenience and economy.

A 200 ton tile silo has been built. It too, fills a great need and will soon save its cost in the preservation of feed stuffs. The farm and dairy, notwithstanding the unprecedented drought, contributed very considerably to the sanatorium larder. Of course, much of the garden truck did not develop for lack of rain, yet there was produce amounting to $11,909.45, as follows: 139 bushels turnips, $139.00; 5 bushels radishes $5.00; 53 bushels Irish potatoes, $143.00; 57 bushels sweet potatoes, $71.00; 60 bushels string beans, $90.00; 86 bushels tomatoes $172.00; 106 bushels squash, $106.00; 6 bushel beets, $12.00; 38 bushels okra, $76.00; 17 bushels Lima beans, $34.00; 63 bushels greens, $63.00; veal, 587 lbs., $88.05; 2510 lbs. pork, 1385 lbs. cabbage, $40.80; 894 doz. corn, $178.80; 100 heads lettuce, $5.00; 448 watermelons,

$45.00; 8655 canteloupes, $215.75; 900 cabbage plants, 90c; 3100 sweet potato plants, $3.10; 1100 tomato plants, $1.10; 15 tons millet, $150.00; 3 tons soy bean hay, $75.00; 260 tons silage, $2600.00; 17,920 gallons milk, $7,168.00.

The location of the Children's building makes it desirable to secure the land lying between it and the railroad. I understand the tract is a part of an estate which is to be settled in the near future. If this tract is really desired, arrangements to secure it from the estate should be made as soon as possible.

The proximity of the Sanatorium building to the Wilson woods increases the fire hazard, as we realized while fighting fire there recently.

With a constantly lengthening waiting list and weekly urgent requests for the admission of patients, something should be done to increase the turnover for each bed, until ample provision is made for the prompt acceptance of an applicant. At present a large per cent of our beds is clogged with far-advanced patients, while applicants pass to that stage awaiting admission.

Religious societies, ministers and theological students of Columbia have cared for the spiritual needs of the patients. Weekly services have been held. Other organizations have provided social entertainments from time to time, which, with the moving pictures every two weeks, relieved the tedium of cure-taking.

With the Sanatorium standard of one physician for 50 patients, we will need two physicians with the opening of the Children's Unit. More nurses will be necessary too, but before they and the physicians are secured, living quarters for them should be provided. We need a modern nurses' home; a home for the assistant physician as his present quarters are not suitable for a married man. Other needs are a community building with amusement hall, occupational therapy rooms, patients' exchange, barber shop, etc.

The X-Ray is almost indispensable in the diagnosis and treatment of tuberculosis. We should have a machine. The need of an Alpine lamp has been mentioned.

I wish to express my appreciation of the cooperation given by your Committee and by the State Health Officer.

Respectfully submitted,

ERNEST COOPER, Superintendent.

ANNUAL REPORT OF FIELD SECRETARY SOUTH CAROLINA SANATORIUM

Mrs. I. L. Cain

Dec. 15, 1925.

To the Executive Committee South Carolina State Board of Health, Columbia, S. C.:

Gentlemen: During the past year I have carried on the usual activities of my office:

Office Work. Receiving, acknowledging and classifying applications for admission to the Sanatorium, keeping both an alphabetical and chronological file of same; notifying patients of their acceptance for admission when their names are reached on file—since January 1925 over three hundred applications have been received; correspondence with county nurses, Red Cross secretaries and other agencies regarding applications, correspondence with the families of prospective patients and of those already in the Sanatorium—over eight hundred letters of this type have been written since January. Correspondence with clubs, societies, interested individuals and county organizations regarding the needs and work of the Sanatorium, contributions for welfare work among the patients and for supplementary furnishings in the various wards— over a thousand circular and individual letters of this type have been sent out and over three thousand dollars secured through these sources during 1925.

Field Work. Visiting the various counties in the interest of the Sanatorium, doing case work, etc.—every county except two have been visited this year. Addressing conventions, clubs, summer schools and societies on the subject of the tuberculosis program of the State Board of Health, the facilities of the Sanatorium, or on general tuberculosis prevention—twenty-two talks along these educational lines have been made this year. Attending conferences of tuberculosis workers—three attended in 1925, two in the State and one out of the State. Placing of the facts about the Sanatorium, its conduct and its needs, before the various county delegations prior to their coming to Columbia.

Welfare Work. Carrying relatives or interested people out to visit patients. Interesting the various Church Societies in Columbia in the visiting of patients, supplying of flowers and

delicacies and other personal attentions, as well as occasional religious services for the patients who belong to their respective communions—five churches in Columbia now have especial committees for this work. Supplying clothing for indigent patients and securing aid for families of patients who need such care—this latter service contributes to the recovery of the patient through the relieving of mental anxiety. Doing shopping and other errands for the patients—owing to lack of time this is not done regularly but especial errands are frequently attended to.

During the year I made visits to Sanatoria in Virginia, North Carolina, Georgia and Alabama with a view to getting suggestions for our new ward and for my own work; these trips were made in the car furnished me by the Board, but in my own holiday time and at my own expense.

During the year 1926 I should like to have the authorization of the Board to extend my work in the direction of preventive work among children; I am therefore asking their attention to the plans outlined on the accompanying page.

I should also like, at this time, to express my sincere appreciation of the very real help and cooperation which I have received from the various members of your Board; without it my efforts would have been far less successful.

Respectfully submitted,

Mrs. I. L. Cain,
Field Secretary.

REPORT OF THE HOTEL INSPECTION DEPARTMENT FOR THE YEAR 1925

The hotel situation in South Carolina during the year just closed has been about as good as we could wish for under existing conditions. With only a few exceptions, they are in a good sanitary condition and we find the spirit of cooperation existing among the managers and the public.

There have been five new hotels opened up during the year. The Musgrove at Union, while small, is fire-proof and sanitary, and complies fully with the law. The John C. Calhoun at Anderson, Poinsett at Greenville, and the Fairfield Inn at Winns-

boro are modern and up-to-date in every respect, and are a credit to the cities in which they are located. The New Marion hotel at Marion was opened during the summer and is a credit to Marion, filling a long felt need.

There have been two fires during the year—the River View at Beaufort and the St. John at Columbia. We are glad to report there were no casualties in either of these fires.

We have recommended that the hotel at Woodruff be closed permanently, it being unsanitary and a fire trap. The same applies to the Central Hotel at Florence.

The personnel of the Hotel Inspection Department was changed during the year on account of the resignation of J. H. Woodward August 1st. This place has been filled since that date by Dr. R. G. Hamilton.

We attach hereto a copy of the names of the hotels in the State, together with the location and score of each.

Respectfully submitted,

J. H. WOODWARD,
R. G. HAMILTON, M. D.

Name of Hotel	Town	Score
Eureka	Abbeville	880
John C. Calhoun	Anderson	995
Plaza	Anderson	955
Salla	Anderson	850
Anderson	Andrews	750
Keith Oneida	Andrews	900
Aiken Inn	Aiken	860
Aiken	Aiken	880
Gildare	Allendale	700
Chorland	Allendale	700
Circle Inn	Barnwell	850
Diamond	Barnwell	950
Shamrock	Blackville	960
Visitors Home	Beaufort	968
River View	Beaufort	(Burned)
The Tucker Inn	Beaufort	968
Bethune	Bethune	600
Evason	Bennettsville	965
Big Springs	Big Springs (RD Bethune)	950
Mayflower	Bamberg	960
Commercial	Batesburg	900
Batesburg	Batesburg	985
Belton	Belton	780
Gettys	Blacksburg	840
Pioneer	Bishopville	850
New Commercial	Bishopville	850
Grace	Conway	900
Kinston	Conway	890

Name of Hotel	Town	Score
Clinton	Clinton	935
New Clio	Clio	750
Meyers	Chester	825
Carolina Inn	Chester	880
Chester	Chester	900
Covington	Cheraw	972
Reynard	Cheraw	975
Jefferson	Columbia	1000
Jerome	Columbia	970
Imperial	Columbia	900
Gresham	Columbia	980
St. John	Columbia	(Burned)
Colonia	Columbia	950
Marmac	Columbia	980
McLean	Columbia	800
Union	Columbia	700
DeSoto	Columbia	980
Capitol	Columbia	840
Mason	Columbia	700
New Charleston	Charleston	900
St. John	Charleston	850
Argyle	Charleston	940
Timrod Inn	Charleston	940
America	Charleston	870
Francis Marion	Charleston	995
Fort Sumter	Charleston	995
Camden	Camden	900
Commercial	Camden	875
Park View	Camden	900
Railroad	Central	600
Worsham Inn	Central	950
McFall	Darlington	990
Darlington	Darlington	800
Denmark	Denmark	917
Due West	Due West	750
Wheeler	Dillon	800
Dillon	Dillon	800
New Dixie Highway	Edgefield	970
Coopman House	Eutawville	845
Estill	Estill	840
Fountain Inn	Fountain Inn	700
New Hotel	Fairfax	950
Florence	Florence	700
Central	Florence	400
Pee Dee	Florence	850
Dickman House	Florence	1000
Tourist	Greenville	940
Imperial	Greenville	995
Ottaray	Greenville	999
Poinsett	Greenville	1000
Wilson	Greenville	800
Alexandria	Greenville	940
Piedmont	Greenville	910
Cason	Greenville	600
New Commercial	Greenville	850
Washington	Greenville	980
Virginia	Greenville	999
Carolina	Greenville	920
Oregon	Greenwood	990
Greenwood	Greenwood	825

Name of Hotel	Town	Score
Moreland	Greenwood	960
Gladstone	Georgetown	840
Tourist	Georgetown	840
Winyah	Georgetown	800
Dearborn Inn	Great Falls	930
Carroll	Gaffney	960
Commercial	Gaffney	850
Hampton	Hampton	700
Holly Hill	Hampton	805
Price	Holly Hill	850
Arcade	Hartsville	925
Hatchet	Inman	850
Johnston Inn	Johnston	932
Enterprise	Jonesville	600
Benton	Kershaw	800
Kingstree	Kingstree	935
Royal	Lancaster	942
Palmetto	Lake View	925
Biltmore	Lake City	800
Drafts	Lexington	875
Lamar	Lamar	800
Latta	Latta	700
Laurens	Laurens	800
Baggott	Lanes	850
Lockhart	Lockhart	800
Imperial	Landrum	850
Wateree	Longtown	950
Leesville	Leesville	
Marion	Marion	995
Hampton	McBee	900
Kirkland	McColl	900
Manning	Manning	965
Kineen	Mayesville	840
Vaughn	Mullins	980
Katurah	McCormick	840
National	Newberry	875
Newberry	Newberry	950
Neeses	Neeses	700
Sherard	Ninety Six	800
Nichols	Nichols	700
Kirkland	Norway	800
Orangeburg	Orangeburg	875
St. Joseph	Orangeburg	870
Pickens Inn	Pickens	850
Old Hickory Inn	Pickens	750
Wise	Prosperity	650
Antrim	Pelzer	875
Piedmont	Piedmont	825
Victor Inn	Pacolet	975
Blackwell	Pageland	800
Blakeney	Pageland	940
Carolina	Rock Hill	880
Anderson Motor	Rock Hill	800
Sycamore	Ridgeland	896
Lipman	Ridgeland	750
Sawyer's	Ridge Springs	800
James	Ridge Springs	800
Cleveland	Spartanburg	994
Gresham	Spartanburg	988
Franklin	Spartanburg	996

Name of Hotel	Town	Score
Spartan	Spartanburg	700
Clinchfield	Spartanburg	810
Piedmont	Spartanburg	Unsatisfactory
Jackson	Spartanburg	Unsatisfactory
Washington	Spartanburg	800
Imperial	Sumter	910
Claremont	Sumter	910
Squirrel Inn	Summerville	975
Oconee Inn	Seneca	887
Palmetto	Seneca	700
Commercial	Springfield	960
Springfield	Springfield	850
Calhoun	St. Matthews	860
Hartzog	St. George	825
Saluda	Saluda	800
Timmonsville	Timmonsville	600
Union	Union	700
Nursgrove	Union	900
Edisto	Wagener	600
Alexander	Walhalla	950
Whitmire	Whitmire	875
Albert	Walterboro	850
Palmetto Inn	Walterboro	900
Ware Shoals	Ware Shoals	990
Fairfield Inn	Winnsboro	995
Carter	Winnsboro	800
Wilson	Williston	970
Woodruff	Woodruff	Unsatisfactory
Shandon	York	700

TOURIST HOTELS

Wilcox	Aiken	990
Highland Park	Aiken	990
Palmetto Inn	Aiken	900
Court Inn	Camden	990
Hobkirk Inn	Camden	980
Kirkwood	Camden	990
Villa Margherita	Charleston	990
Fort Sumter	Charleston	995
Jordan Inn	Monetta	960
Pine Forest Inn	Summerville	990
Carolina	Summerville	990

SUMMER RESORTS

Caesar's Head	Caesars Head	900
Big Springs	Big Springs	950
Glenn Springs	Glenn Springs	700
Valley View	Marietta	850
Myrtle Beach	Myrtle Beach	850
Yatch Club	Myrtle Beach	900

REPORT OF CHEMIST AND BACTERIOLOGIST

Charleston, S. C.,

December 30, 1925.

To the Chairman and Members of the Executive Committee of the State Board of Health:

I have the honor to submit the following tabulated report of sanitary, chemical and bacterial analysis of samples of water from the public water supplies of South Carolina, made under the direction of the State Board of Health, in accordance with law relating to the purity of water supplies, I, Code, Section 1599; and of information as to officials of local boards of health and plants, source, capacity, discharge of sewage and disposition of garbage.

In addition to analysis of water from towns and cities, chemical and bacterial analysis have been made of waters from fifty-eight (58) industrial plants, two (2) bottling plants and seventy-two (72) miscellaneous supplies.

From one hundred and two (102) supplies the samples first received showed either presumptive chemical or bacterial indication of contamination. In each of these cases check samples were called for, and directions were given regarding the inspection and regulation of the supplies, and analysis of samples continued until supplies were regulated and the water found to be free from contamination, or unsuitable.

The contamination continued to persist in twenty-seven (27) supplies, and it was recommended that the use of these supplies be discontinued.

Seven (7) samples were received for analysis for suspected poisons, three (3) stomachs, one (1) flour, one (1) water, one (1) butts meat, and one (1) slops. Two of these were found to contain poison.

The management and treatment of the public water supplies during the past year has been efficient, and there has been an increased interest in the protection and maintenance of the purity of private supplies.

Very respectully,

FRANCIS L. PARKER, M. D.

WATER SUPPLY OF ABBEVILLE, S. C.

Abbeville Water & Electric Plant. Owned by City. Superintendent C. P. Townsend. Chairman of Local Board of Health Dr. J. R. Power.
Source: Creek, one and a third miles from City. Capacity 500,000 gallons per day; filtered by mechanical filter. Treatment one half grain alum per gallon. Capacity of plant 500,000 gallons per day. Average consumption 250,000 gallons per day. Consumption per capita 40 gallons per day. Service metered. Sixty five per cent of residences using supply. Sewerage system: Sixty per cent of city seweraged and have water closets. Sewerage empties into creek. No garbage disposal plant. Garbage dumped in old fields and gullies.

Sample Drawn	Color	Chlorine	Free Ammonia	Albuminoid Ammonia	Nitrogen as Nitrites	Nitrogen as Nitrates	Total Solids	Bacterial indications of contamination	Chemical indications of contamination
April 1, 1925	5.00	7.00	0.02	0.02	0.00	0.10	86.00	Negative	Negative
June 1, 1925	5.00	8.00	0.03	0.03	0.00	0.10	119.00	Negative	Negative
September 3, 1925	5.00	11.00	0.03	0.03	0.00	0.00	151.00	Negative	Negative
December 8, 1925	5.00	9.00	0.01	0.02	0.00	0.00	115.00	Negative	Negative

WATER SUPPLY OF AIKEN, S. C.

City Water Works. Superintendent H. Sudlow. In charge of collection H. Busch. Chairman of Local Board of Health Dr. C. H. Farmer.
Source: Collection of springs, 6½ miles from City. Capacity 2,000,000 gallons per day. Not filtered. Capacity of Plant, pumpage 1,500,000 gallons per day. Average consumption 500,000 gallons per day. Consumption per capita 125 gallons per day. One hundred per cent of city using city water supply. Sewerage system: Seventy five per cent of city sewered. Fifty per cent of buildings connected with sewer and have water closets. Sand filter beds. Sewerage empties into small streams. No garbage disposal plant.

March 17, 1925	10.00	7.00	0.08	0.02	0.004	0.10	47.00	Negative	Negative
May 28, 1925	5.00	5.00	0.03	0.02	0.000	0.20	41.00	Negative	Negative
September 16, 1925	5.00	5.00	0.03	0.02	0.020	0.00	65.00	Negative	Negative
December 9, 1925	5.00	4.00	0.05	0.05	0.000	0.10	40.00	Negative	Negative

WATER SUPPLY OF ALLENDALE, S. C.

Allendale Light & Water Plant. Owned by town. Superintendent J. W. Mallard. Chairman of Local Board of Health Dr. J. E. Warnock.
Source: Deep well 752 feet deep, 8 inches in diamter, near center of town; not filtered. Capacity 240,000 gallons per day. Average consumption 140,000 gallons per day. Consumption per capita 34 gallons per day. Sixty per cent of service metered. Eighty eight per cent of residences using city water supply. Sewerage system: Fifty eight per cent of buildings connected with sewer and have water closets. Septic tank and sprinkling filter. Sewerage empties into Coosawhatchie River. No garbage disposal plant. Garbage dumped in open fields one and a half miles from city and burned.

Sample Drawn.	Color	Chlorine.	Free Ammonia.	Albuminoid Ammonia.	Nitrogen as Nitrites.	Nitrogen as Nitrates.	Total Solids.	Bacterial Indications of Contamination.	Chemical Indications of Contamination
March 17, 1925	5.00	8.00	0.02	0.02	0.000	0.00	166.00	Negative	Negative
June 26, 1925	5.00	5.00	0.04	0.04	0.000	0.00	187.00	Negative	Negative
September 16, 1925	5.00	6.00	0.02	0.01	0.000	0.00	162.00	Negative	Negative
December 16, 1925	5.00	8.00	0.03	0.02	0.000	0.00	178.00	Negative	Negative

WATER SUPPLY OF ANDERSON, S. C.

Southern Public Utilities Co. Manager H. A. Orr. In charge of collection of samples R. L. Swittenberg. Chairman of Local Board of Health Dr. J. C. Sanders.
Source: Bailey's Creek, two miles, and Rocky River three miles from city. Capacity 20,000,000 gallons per day. Filtered and chlorinated. Filtered by mechanical filter. Treatment one half grain of alum per gallon. Capacity of Plant 2,500,000 gallons per day. Consumption per capita 50 gallons per day. Service metered. Ninety five per cent of buildings use city water supply. Sewerage system: Ninety three per cent of city sewered. No sewerage disposal plant. Sewerage empties into Rocky River and Generostee Creek.

March 14, 1925	5.00	5.00	0.02	0.02	0.00	0.10	75.00	Negative	Negative
May 27, 1925	5.00	4.00	0.01	0.01	0.00	0.10	72.00	Negative	Negative
September 2, 1925	5.00	5.00	0.06	0.03	0.00	0.00	74.00	Negative	Negative
December 3, 1925	5.00	7.00	0.02	0.02	0.00	0.01	60.00	Negative	Negative

WATER SUPPLY OF ANDREWS, S. C.

Water Supply of Andrews. Superintendent T. W. Bellune. In charge of collection of samples T. W. Bellune. Chairman local Board of Health Dr. D. O. DuBose.

Source: Black River. Capacity practically unlimited. Water chlorinated and filtered through sand filters of 100,000 gallons capacity. Capacity of plant 500,000 gallons per day. Average consumption in terms of gallons per day 200,000 gallons per day. Service metered 100 per cent. Sewerage system: Septic tank disposal. No garbage disposal plant. Garbage dumped outside of town.

June 18, 1925	90.00	10.00	0.05	0.05	0.00	0.10	135.00	Negative	Negative
September 18, 1925	80.00	10.00	0.01	0.12	0.00	0.00	127.00	Negative	Negative
December 9, 1925	90.00	11.00	0.01	0.25	0.00	0.00	109.00	Negative	Negative

WATER SUPPLY OF BAMBERG, S. C.

Light, Water and Power Plant. Owned by city. Under Board of Public Works. Superintendent L. P. Tobin. In charge of collection of samples L. P. Tobin. Chairman of Local Board of Health Dr. H. J. Stuckey.

Source: Eight flowing wells, 480 feet deep. At present the 8 inch well gives (inch) more water than can be used, therefore other wells are not being used. Capacity of plant 250,000 gallons per day. Average consumption 75,000 gallons per day. Service ninety five per cent metered. Sewerage system: Seventy five per cent of houses have septic tanks. No sewerage. Garbage disposed of by dump wagons.

April 28, 1925	15.00	5.00	0.02	0.02	0.00	0.00	50.00	Negative	Negative

WATER SUPPLY OF BARNWELL, S. C.

Barnwell Light & Water Works. Owned by city. Superintendent F. H. Miller. Chairman of Local Board of Health W. C. Milhouse.

Source: Four wells. Three 4½ inches and one 6 inches in diameter, 151 feet deep, in city. Capacity 200,000 gallons per day. Not filtered. Capacity of plant 110,000 gallons per day. Average consumption 100,000 gallons per day. Consumption per capita 30 gallons per day. Entire service metered. Fifty per cent of buildings using city water supply. Sewerage system: Ninety per cent of buildings have water closets. Forty per cent connected with sewer. Ten per cent have septic tanks.

March 9, 1925	30.00	7.00	0.02	0.02	0.00	0.00	87.00	Negative	Negative
June 1, 1925	5.00	8.00	0.02	0.02	0.00	0.00	84.00	Negative	Negative
September 1, 1925	5.00	9.00	0.01	0.01	0.00	0.00	125.00	Negative	Negative
December 4, 1925	5.00	6.00	0.01	0.02	0.00	0.00	94.00	Negative	Negative

WATER SUPPLY OF BATESBURG, S. C.

Commission of Public Works. Owned by town. Superintendent R. E. Hoover. In charge of collection of samples R. E. Hoover. Chairman local Board of Health S. T. Altman.

Source: Three wells in city. Not filtered. Capacity 75,000 gallons per day. Service metered. Average consumption 50,000 gallons per day. Consumption per capita twenty gallons per day. Thirty three and a third per cent of buildings using city water supply. Sewerage system. Complete sewerage system. One per cent septic tanks. No garbage disposal plant.

Sample Drawn.	Color	Chlorine.	Free Ammonia.	Albuminoid Ammonia.	Nitrogen as Nitrites.	Nitrogen as Nitrates.	Total Solids.	Bacterial Indications of Contamination.	Chemical Indications of Contamination.
January 21, 1925	5.00	7.00	0.09	0.05	0.00	0.10	141.00	Negative	Negative
July 16, 1925	5.00	8.00	0.01	0.01	0.00	0.00	82.00	Negative	Negative

WATER SUPPLY OF BEAUFORT, S. C.

City of Beaufort, S. C. Light & Water Department. Superintendent J. W. Logan. In charge of collection of samples Hunter K. McGee. Chairman of local Board of Health Dr. H. C. Foster.

Source: Well twelve inches in diameter and 125 feet deep, in center of city. Not filtered. Average consumption 50,000 gallons per day. Consumption per capita 50 gallons per day. Service partly metered. Thirty per cent of buildings connected with city water supply. No sewerage system. Fifty per cent private sewers. Sewerage empties into Salt Water River. No garbage disposal plant. Garbage dumped at edge of city limits and burned.

February 5, 1925	5.00	33.00	0.08	0.05	0.00	0.00	233.00	Negative	Negative
August 6, 1925	5.00	34.00	0.07	0.02	0.001	0.00	241.00	Negative	Negative

WATER SUPPLY OF BENNETTSVILLE, S. C.

Bennettsville Electric & Water Plant. Owned by city. Manager E. C. Morrison. In charge of collection of samples E. C. Morrison. Chairman of local Board of Health Dr. D. Jennings.

Source: Eight wells, four and one half inches in diameter, six 60 feet deep and two 40 feet deep. Pumped by steam and electric pumps. Average consumption 275,000 gallons per day. Capacity of plant 500,000 gallons per day. Consumption per capita 70 gallons per day. All services except public services metered. Ninety five per cent buildings in business and residence section and sixty per cent buildings in corporate limits using city water supply. Sewerage system: Eighty seven per cent of buildings in residence and business section, and fifty five per cent buildings in city limits connected with sewer and have water closets. Septic tank. Sewerage empties into Crooked Creek one and a half miles from city. No garbage disposal plant.

March 9, 1925	5.00	24.00	0.07	0.02	0.00	0.10	152.00	Negative	Negative
June 10, 1925	5.00	25.00	0.06	0.03	0.00	0.20	168.00	Negative	Negative
September 5, 1925	5.00	28.00	0.07	0.04	0.00	0.20	118.00	Negative	Negative
December 28, 1925	5.00	26.00	0.04	0.03	0.00	0.20	110.00	Negative	Negative

WATER SUPPLY OF BISHOPVILLE, S. C.

City of Bishopville Water Supply. Owned by City of Bishopville. Superintendent of supply, J. C. King. In charge of collection of samples, J. W. King. Chairman of local Board of Health D. A. Quattlebaum.

Source: Deep Well. Capacity of supply 300,000 gallons per day. No treatment. Capacity of plant 300,000 gallons per day. Average consumption approximately 120,000 gallons per day. Sixty five per cent of service metered at present. Sewerage system: Tile pipe to setting tank. Fifty per cent of buildings are connected with sewer and have water closets. Settled at tank and liquid allowed to flow to Lynches River. Garbage is dumped out side of city limits. No garbage disposal plant or incinerator.

March 21, 1925	5.00	6.00	0.03	0.02	0.00	0.00	40.00	Negative	Negative
May 27, 1925	5.00	6.00	0.02	0.02	0.00	0.00	55.00	Negative	Negative
September 10, 1925	5.00	6.00	0.03	0.01	0.00	0.00	32.00	Negative	Negative
December 24, 1925	10.00	6.00	0.01	0.02	0.00	0.00	50.00	Negative	Negative

WATER SUPPLY OF BLACKSBURG, S. C.

Board of Public Works. Owned by town. In charge of collection of samples, J. L. Quinn. Chairman of local Board of Health, Dr. V. M. Roberts.

Source: Seven springs having a flow of 500 galons per minute, of which town utilizes about 200,000 per day. Not treated or filtered. Average consumption 20,000 gallons per day. Fifty per cent of buildings using water supply, and about fifty per cent service metered. Sewerage System: Septic tanks, complete sewerage. Thirty per cent of buildings have water closets and are connected with city sewer. Sewerage is disposed of by septic tanks, etc. Garbage disposed of by hauling away. No garbage plant or incinerator.

March 9, 1925	5.00	8.00	0.02	0.02	0.00	0.00	129.00	Negative	Negative
July 11, 1925	5.00	6.00	0.03	0.01	0.00	0.00	88.00	Negative	Negative
September 12, 1925	5.00	5.00	0.04	0.02	0.00	0.00	133.00	Negative	Negative
December 16, 1925	5.00	4.00	0.02	0.03	0.00	0.00	136.00	Negative	Negative

WATER SUPPLY OF CAMDEN, S. C.

City of Camden Water & Light Plant. Superintendent W. B. Allred. In charge of collection of samples John W. Wilson, and W. B. Allred. Chairman of local Board of Health C. W. Billings.

Source: From Pine Tree Creek, having a drainage area of 500 acres. Owned by town. Normal flow of spring 3,000 gallons per minute. Pumping plant is 1½ miles from town. Water is treated with alum and soda ash, and filtered. Capacity of plant 575,000 gallons per day. Eighty one per cent of buildings connected with and using city water supply. Sewerage system: Fifty four per cent of buildings connected with sewerage systems and have water closets. Sewerage empties into Wateree River. No garbage disposal plant. Garbage emptied on outskirts of town and partly burned.

Sample Drawn.	Color	Chlorine.	Free Ammonia.	Albuminoid Ammonia.	Nitrogen as Nitrites.	Nitrogen as Nitrates.	Total Solids.	Bacterial Indications of Contamination.	Chemical Indications of Contamination.
March 13, 1925	10.00	5.00	0.05	0.02	0.00	0.00	49.00	Negative	Negative
June 1, 1925	5.00	5.00	0.01	0.01	0.00	0.00	81.00	Negative	Negative
September 1, 1925	10.00	8.00	0.01	0.01	0.001	0.00	58.00	Negative	Negative
December 16, 1925	15.00	14.00	0.03	0.02	0.00	0.00	140.00	Negative	Negative

WATER SUPPLY OF CHARLESTON, S. C.

Commission of Public Works, City Water Department. Manager and Engineer James E. Gibson. In charge of collection of samples Dr. F. L. Parker. Chairman local Board of Health Dr. J. A. Ball.

Source: Goose Creek, drainage area 42.5 square miles, 12 miles from city. This is an impounded supply, the reservoir being an old tide water basin dammed off from tidal sea water. Area of flooded reservoir 2,100 acres. Capacity 2,700,000 gallons which would supply 8,000,000 gallons per day. Filtered by mechanical filter. Treatment Sulphate of Alumina, caustic soda and liquid chlorine. Capacity of plant pumping 15,000,000 gallons, filters 14,000,000 gallons. Average consumption 5,500,000 gallons per day. Consumption per capita 60 gallons per day. Service 100 per cent metered. Supplementary supply, Ashley River, Bacon's Bridge, drainage area 245 square miles. Available supply as at present developed 2,000,000 gallons. Sewerage system: Sewerage empties into Charleston Harbor. Garbage disposal plant, incinerator.

March 19, 1925	25.00	13.00	0.04	0.12	0.00	0.00	82.00	Negative	Negative
June 10, 1925	20.00	14.00	0.04	0.12	0.00	0.00	87.00	Negative	Negative
September 9, 1925	20.00	27.00	0.02	0.12	0.00	0.00	115.00	Negative	Negative
December 16, 1925	10.00	37.00	0.06	0.14	0.00	0.00	87.00	Negative	Negative

WATER SUPPLY OF CHERAW, S. C.

Cheraw Water Works, Municipal, Superintendent J. D. Smith. In charge of collection of samples D. L. Tillman, Clerk. Chairman of local Board of Health, Robert Chapman. J. D. Smith, Health Officer.

Source: Pee Dee River. Capacity 1,200 gallons per minute. Filtered by rapid sand filters. Treated with soda ash, alum and chloride of lime. Capacity of plant 400,000 gallons per day. Average consumption 200,000 gallons per day. Service 100 per cent metered. Sewerage system: Nature of sewerage system; gravity, untreated, thence into Pee Dee River. Thirty per cent of buildings have water closets and are connected with city sewer. Sewerage is buried unless sewered. No garbage disposal plant or incinerator, garbage is hauled to dump.

March 25, 1925	5.00	7.00	0.02	0.03	0.00	0.10	119.00	Negative	Negative
June 8, 1925	5.00	6.00	0.03	0.03	0.00	0.10	143.00	Negative	Negative
September 24, 1925	10.00	7.00	0.01	0.02	0.001	0.10	150.00	Negative	Negative
December 28, 1925	20.00	4.00	0.03	0.01	0.00	0.00	148.00	Negative	Negative

WATER SUPPLY OF CHESTER, S. C.

Chester Water Works. Owned by City. Superintendent, J. H. McLure. In charge of collection of samples, J. H. McLure. Chairman of local Board of Health, M. H. White.

Source: River three miles from city. Capacity 1,200,000 gallons per day. Filtered by mechanical filter. Treatment 2 grains alum per gallon. Water chlorinated. Capacity of Plant 720,000 gallons per day. Average consumption 500,000 gallons per day. Consumption per capita 60 gallons per day. Service metered. Eighty five per cent of buildings using city water supply. Sewerage system: Eighty five per cent of city sewered and have water closets. No sewerage disposal plant. Sewerage empties into Tan Yard Branch and Dry Fork Branch. Incinerator for disposal of garbage.

March 6, 1925	15.00	10.00	0.07	0.06	0.00	0.10	76.00	Negative	Negative
May 29, 1925	20.00	11.00	0.02	0.02	0.00	0.10	105.00	Negative	Negative
September 1, 1925	10.00	10.00	0.01	0.01	0.00	0.00	95.00	Negative	Negative
December 8, 1925	15.00	11.00	0.04	0.02	0.00	0.00	53.00	Negative	Negative

WATER SUPPLY OF CLINTON, S. C.

Municipal Water & Light Plant. Superintendent, Olen T. Lawing. In charge of collection of samples, Olen T. Lawing. Chairman of local Board of Health, Dr. T. L. W. Bailey.

Source: Stream, two miles from City. Pumped to city by one 350 gallon per minute centrifugal pump. Filter capacity of plant 1,000,000 gallons per day. Raw water sedimentation basin of 500,000 gallons capacity. Still use wells occasionally to keep them in good condition. Well water not filtered. Average consumption 160,000 gallons per day. Consumption per capita 35 gallons per day. Service metered. Eighty per cent of buildings connected with city water supply. Sewerage system: Fifty per cent of buildings connected with sewer and have water closets. Septic tank. Sewerage empties into two streams. No garbage disposal plant. Garbage dumped outside of city limits.

April 1, 1925	5.00	7.00	0.03	0.02	0.00	0.00	77.00	Negative	Negative
June 5, 1925	5.00	7.00	0.04	0.02	0.00	0.00	106.00	Negative	Negative
September 21, 1925	5.00	20.00	0.03	0.01	0.001	0.20	90.00	Negative	Negative
December 16, 1925	15.00	4.00	0.04	0.02	0.00	0.00	35.00	Negative	Negative

WATER SYSTEM OF CLIO, S. C.

Clio Water Works, Owned by town. Mr. C. T. McColl, superintendent. In charge of collection of samples, C. T. McColl. Chairman local Board of Health, Dr. W. M. Reedy.

Source: Deep wells. Not filtered or treated. Capacity 244,800 gallons per day. Capacity of plant 100,000 gallons per day. Average consumption 15,000 gallons per day. Service 50 per cent metered. Sewerage system: Twenty five per cent of business connected with city sewer. Sewerage disposed of by a septic tank, and sewerage disposal plant. Sewerage empties into Hagans Prong Creek. Garbage is carted to incinerator.

Sample Drawn.	Color	Chlorine.	Free Ammonia.	Albuminoid Ammonia.	Nitrogen as Nitrites.	Nitrogen as Nitrates.	Total Solids.	Bacterial Indications of Contamination.	Chemical Indications of Contamination.
April 7, 1925	5.00	6.00	0.03	0.02	0.00	0.20	66.00	Negative	Negative
June 23, 1925	5.00	7.00	0.03	0.02	0.00	0.20	57.00	Negative	Negative
September 10, 1925	5.00	8.00	0.03	0.01	0.00	0.20	60.00	Negative	Negative
December 5, 1925	5.00	7.00	0.02	0.01	0.00	0.10	40.00	Negative	Negative

WATER SUPPLY OF CLOVER, S. C

Municipal Water Supply. Owned by town. Superintendent, John A. Jackson. In charge of collection of samples, J. A. Jackson. Chairman of local Board of Health, Dr. W. K. McGill.

Source: Deep wells, six in town, three at different points on the edge of town. The six wells in town average 150 feet deep, and three wells at different points are about 100 feet deep. Combined flow 113,760 gallons per day. No treatment. Service 98 per cent metered. Sewerage system: Approximately fifty per cent of houses are connected with sewer. Imhoff tank treatment, effluent from tanks empty into Robertson Branch a tributary of Catawba River.

July 14, 1925	5.00	6.00	0.01	0.01	0.00	0.20	109.00	Negative	Negative

WATER SUPPLY OF COLUMBIA, S. C.

Water Department, City of Columbia. City Engineer W. S. Tomlinson. In charge of collection of samples, C. H. White, for water works, and Dr. M. M. Rice. Local Health Officer, Dr. M. M. Rice.

Source: Congaree River. Capacity practically unlimited. Filtered by rapid sand filters. Capacity of plant 13,000,000 gallons per day. Treatment one grain of alum per gallon. Average consumption 6,500,000 gallons per day. Service metered. Ninety nine per cent of buildings using city water supply. Sewerage system: Eighty five per cent of buildings connected with city sewer and have water closets. Sewerage empties into Congaree River. Garbage is being dumped in out of the way places and covered with earth at present, and two disposal plants are now in operation.

March 9, 1925	5.00	7.00	0.03	0.02	0.00	0.00	35.00	Negative	Negative
May 30, 1925	5.00	6.00	0.04	0.03	0.00	0.00	117.00	Negative	Negative
August 31, 1925	5.00	8.00	0.03	0.02	0.00	0.10	80.00	Negative	Negative
December 3, 1925	15.00	8.00	0.02	0.04	0.00	0.10	95.00	Negative	Negative

WATER SUPPLY OF CONWAY, S. C.

Water Supply of Town of Conway, owned by town. Superintendent C. H. Snider. In charge of collection of samples, C. H. Snider. Health Officer, C. H. Snider.

Source: Flowing artesian well. Capacity 90 gallons per minute. Not filtered. Treated with chloride of lime. Capacity of plant 150,000 gallons per day. Average consumption 125,000 gallons per day. Service 90 per cent metered. Sewerage system: Nature of sewerage system verified sewer pipe. Fifty per cent of buildings have water closets and are connected with city sewer. Public sewer, emptying into Waccamaw River. No garbage disposal plant.

March 16, 1925	10.00	56.00	0.05	0.05	0.001	0.00	697.00	Negative	Negative
May 28, 1925	15.00	53.00	0.07	0.05	0.000	0.00	674.00	Negative	Negative
September 3, 1925	10.00	55.00	0.03	0.05	0.000	0.01	695.00	Negative	Negative
December 4, 1925	20.00	51.00	0.08	0.06	0.002	0.00	670.00	Negative	Negative

WATER SUPPLY OF DARLINGTON, S. C.

Darlington Water Company. Superintendent, E. G. Couch. In charge of collection of samples, E. G. Couch. Chairman local Board of Health, J. W. Willcox.

Source: Wells, diameter 8 inches. Depth 335 feet, Diameter 6 inches depth 574 feet. Diameter 6 inches depth 200 feet, and diameter 10 inches depth 317 feet. Capacity 650,000 gallons per day. Capacity of plant 650,000 gallons per day. Average consumption 200,000 gallons per day. Consumption per capita 45 gallons per day. Service metered. One hundred per cent of buildings using city water supply. Sewerage system: Almost all of town is sewered. Seventy five per cent of buildings connected with sewer and have water closets.

March 6, 1925	15.00	6.00	0.02	0.06	0.00	0.00	77.00	Negative	Negative
May 28, 1925	25.00	5.00	0.03	0.02	0.00	0.00	68.00	Negative	Negative
September 1, 1925	15.00	6.00	0.01	0.02	0.00	0.00	30.00	Negative	Negative
December 5, 1925	10.00	5.00	0.04	0.03	0.00	0.10	135.00	Negative	Negative

WATER SUPPLY OF DILLON, S. C.

Dillon Water Works Plant. Owned by town. Secretary and Treasurer, O. J. Hayes. Superintendent, and in charge of collection of samples, M. D. Davis. Chairman local Board of Health, Dr. L. F. Johnson.

Source: Twenty shallow wells, 30 feet deep, capacity 90,000 gallons daily. One well over 200 feet deep, capacity 201,600 gallons daily. Deep well water filtered through sand to remove iron. No chemicals used. Average consumption 125,000 gallons per day. Consumption per capita 44 gallons per day. Fifty per cent of buildings using city water supply. Sewerage system: Fifty per cent of buildings are connected to sewer and have water closets. Septic tank. Sewerage empties into Pee Dee River. No garbage disposal plant. Garbage dumped in low and suitable places. Water supply metered.

Sample Drawn.	Color	Chlorine.	Free Ammonia.	Albuminoid Ammonia.	Nitrogen as Nitrites.	Nitrogen as Nitrates.	Total Solids.	Bacterial Indications of Contamination.	Chemical Indications of Contamination.
March 25, 1925	5.00	6.00	0.02	0.02	0.00	0.00	204.00	Negative	Negative
June 4, 1925	5.00	13.00	0.03	0.02	0.00	0.20	70.00	Negative	Negative
September 1, 1925	5.00	9.00	0.07	0.03	0.00	0.20	80.00	Negative	Negative
December 9, 1925	5.00	9.00	0.02	0.02	0.00	0.10	68.00	Negative	Negative

WATER SUPPLY OF EASLEY, S. C.

City Water & Light Plant. Owned by City. Superintendent T. M. Rogers. In charge of collection of samples, T. M. Rogers. Chairman of local Board of Health, Dr. W. B. Furman.

Source: Burdine Creek one mile from city. Capacity 1,000.000 gallons per day. Water is filtered and chlorinated. Treated with alum and lime. Average consumption 250,000 gallons per day. Consumption per capita 50 gallons per day. Service metered. Eighty per cent of buildings using city water supply. Sewerage system: About 75 per cent of town is sewered. Septic tanks, thence into Brush Creek, and Eighteen Mile Branch. No garbage disposal plant. Garbage dumped into large ditch.

March 19, 1925	10.00	6.00	0.02	0.02	0.00	0.00	61.00	Negative	Negative
June 3, 1925	5.00	5.00	0.02	0.02	0.00	0.10	83.00	Negative	Negative
September 4, 1925	10.00	4.00	0.04	0.02	0.00	0.00	67.00	Negative	Negative
December 8, 1925	5.00	5.00	0.02	0.02	0.00	0.10	82.00	Negative	Negative

WATER SUPPLY OF EDGEFIELD, S. C.

Water Works Commission. Owned by town of Edgefield, S. C. W. M. Harling, Superintendent. In charge of collection of samples, W. M. Harling Dr. J. G. Tompkins, Chairman of Local Board of Health.

Source: Two wells, diameter 8 inches, depth 190 feet. Another well is at present under construction. Capacity 72,000 gallons per day. Not filtered. No treatment. Capacity of plant 60,000 gallons per day. Average consumption 45,000 gallons per day. Ninety nine per cent of service metered. Sewerage system: Twenty five per cent of buildings have water closets and are connected with city sewer. Automatic flush tanks carry sewerage to septic tanks, thence through filter bed. No garbage disposal plant. Garbage is burned.

March 9, 1925	5.00	8.00	0.03	0.02	0.00	0.30	110.00	Negative	Negative
May 27, 1925	5.00	8.00	0.06	0.04	0.00	0.10	109.00	Negative	Negative
September 4, 1925	5.00	8.00	0.03	0.02	0.00	0.20	156.00	Negative	Negative
December 4, 1925	5.00	10.00	0.02	0.02	0.00	0.00	115.00	Negative	Negative

WATER SUPPLY OF EHRHARDT, S. C.

Water Supply of Ehrhardt. Owned by town. Superintendent, J. R. Hiers. In charge of collection of samples, J. R. Hiers. Chairman local Board of Health, Dr. M. S. Fender.

Source: Flowing artesian well, diameter 8 inches. Filtered by iron removal filters. Capacity of plant 150,000 gallons per day. Average consumption 30,000 gallons per day. Ninety per cent of service metered. No sewerage system: Thirty per cent of buildings have water closets. No garbage disposal plant. Garbage is hauled away.

October 1, 1925	5.00	6.00	0.04	0.01	0.00	0.00	84.00	Negative	Negative

WATER SUPPLY OF FLORENCE, S. C.

City of Florence Water Department. Owned by city. Superintendent, D. L. Husbands. In charge of collection of samples, Dr. P. H. Brigham. Health Officer, Dr. P. H. Brigham.

Source: Three wells. Capacity 1,000,000 gallons per day. Not filtered. Average consumption 750,000 gallons per day. Consumption per capita 91 gallons per day. Service metered. Ninety per cent of buildings using city water supply. Sewerage system: Sixty per cent of city sewered. Forty per cent connected with sewer and have closets. Sewerage disposal plant. Sewerage empties into Jeffries Creek. Nye odorless incinerator, ten ton capacity, located on outskirts of city.

April 1, 1925	20.00	31.00	0.02	0.02	0.00	0.00	155.00	Negative	Negative
July 20, 1925	35.00	8.00	0.01	0.02	0.00	0.00	103.00	Negative	Negative
August 31, 1925	15.00	32.00	0.02	0.02	0.00	0.00	204.00	Negative	Negative
December 3, 1925	10.00	34.00	0.02	0.03	0.00	0.00	272.00	Negative	Negative

WATER SUPPLY OF FOUNTAIN INN, S. C.

Fountain Inn Water Supply, owned by Municipal. Mr. W. A. Tumblin, superintendent. In charge of collection of samples, W. A. Tumblin. Dr. J. A. Thomason, chairman of local Board of Health.

Source: Wells. Capacity 250,000 gallons. No treatment. Capacity of plant 100,000 gallons per day. Average consumption 75,000 gallons per day. Service 100 per cent metered. Sewerage system: Eighty per cent of buildings have water closets and are connected with city sewer. No sewerage disposal plant, have septic tank system. Sewerage empties into Rabin and Durbin Creeks. No garbage disposal plant, garbage is buried.

Sample Drawn	Color	Chlorine	Free Ammonia	Albuminoid Ammonia	Nitrogen as Nitrates	Nitrogen as Nitrates	Total Solids	Bacterial Indications of Contamination	Chemical Indications of Contamination
July 20, 1925	10.00	8.00	.01	0.01	0.00	0.00	74.00	Negative	Negative
December 29, 1925	5.00	5.00	0.01	0.01	0.00	0.10	95.00	Negative	Negative

WATER SUPPLY OF GAFFNEY, S. C.

Board of Public Works. Owned by city. Superintendent, L. V. Gaffney. In charge of collection of samples, L. V. Gaffney. Chairman of local Board of Health, Dr. J. B. Hughey.

Source: Cherokee Creek, 3½ miles from city. Filtered by gravity filter. Treatment one grain of alum per gallon. Capacity of plant 1,000,000 gallons per day. Average consumption 200,000 gallons per day. Consumption per capita 25 gallons per day. Service metered. Seventy five per cent of buildings using city water supply. Sewerage system. 677 buildings connected with sewer and have water closets. Sewerage disposal plant. Sewerage empties into branch. Septic.

March 25, 1925	5.00	5.00	0.02	0.02	0.00	0.10	49.00	Negative	Negative
June 19, 1925	5.00	6.00	0.02	0.01	0.00	0.10	76.00	Negative	Negative
September 9, 1925	5.00	7.00	0.03	0.04	0.00	0.00	77.00	Negative	Negative
December 17, 1925	5.00	6.00	0.01	0.02	0.00	0.00	77.00	Negative	Negative

WATER SUPPLY OF GEORGETOWN, S. C.

Black River Water Co. G. T. Clarke, President. In charge of collection of samples, Dr. H. L. Wright. Chairman of local Board of Health, Dr. W. W. Gaillard

Source: Black River 75 miles from city by river, 15 miles by air line. Capacity 1,000,000 gallons per day. Filtered by slow sand filter. Treated with chlorine. Capacity of plant 1,000,000 gallons per day. Average consumption 200,000 gallons per day. Consumption per capita 80 gallons per day. Service metered. Sewerage system: Eighty per cent of city sewered. Sewerage empties into Sampit River. No garbage disposal plant. Garbage disposed of by dumping in low places on abandoned rice fields.

March 9, 1925	180.00	10.00	0.03	0.10	0.00	0.00	86.00	Negative	Negative
May 29, 1925	170.00	11.00	0.06	0.21	0.00	0.00	77.00	Negative	Negative
September 2, 1925	160.00	10.00	0.03	0.15	0.00	0.00	81.00	Negative	Negative
December 4, 1925	120.00	13.00	0.02	0.12	0.00	0.00	130.00	Negative	Negative

WATER SUPPLY OF GREENVILLE, S. C.

Greenville City Water Works. Owned by city. Superintendent, H. W. Perry. In charge of collection of samples, H. W. Perry. Chairman of local Board of Health, Dr. Curran Earle.

Source: Streams in Paris Mountain to reservoir, 8 and 12 miles from city. Not filtered. Gravity system. Capacity 5,000,000 gallons per day. Average consumption 2,000,000 gallons per day. Consumption per capita 50 gallons per day. Service metered. Ninety eight per cent of buildings using city water supply. Additional source run only during dry season. Pump station on Enoree River. 3,000,000 gallons daily capacity. Filtered and chlorinated when used. Sewerage system: Seventy five per cent of city sewered and have water closets. Sewerage emptties into Reedy River. Garbage disposal plant. Garbage dumped at crematory and burned.

March 9, 1925	5.00	5.00	0.02	0.02	0.00	0.00	71.00	Negative	Negative
May 27, 1925	5.00	5.00	0.02	0.02	0.00	0.00	62.00	Negative	Negative
September 2, 1925	15.00	8.00	0.05	0.02	0.00	0.10	69.00	Negative	Negative
December 7, 1925	10.00	4.00	0.05	0.04	0.00	0.00	60.00	Negative	Negative

WATER SUPPLY OF GREENWOOD, S. C.

Greenwood Water & Electric Plant. Owned by city. Superintendent, A. J. Sproles. In charge of collection of samples, A. J. Sproles. Chairman of Local Board of Health, Dr. W. A. Barnett.

Source: Nine deep wells. Capacity 700,000 gallons, additional water supply 750,000 gallons per day, filtered. Average consumption 500,000 gallons per day. Consumption per capita 40 gallons per day. Service metered 90 per cent. Seventy five per cent of buildings using city water supply. Sewerage system: Eighty per cent of city sewered. Treatment, septic tanks into sand and gravel. No garbage disposal plant. Garbage dumped on vacant lots.

March 11, 1925	30.00	6.00	0.01	0.02	0.00	0.00	242.00	Negative	Negative
May 29, 1925	5.00	6.00	0.03	0.03	0.00	0.00	166.00	Negative	Negative
August 31, 1925	10.00	6.00	0.03	0.02	0.00	0.00	200.00	Negative	Negative
December 5, 1925	5.00	8.00	0.03	0.03	0.00	0.00	173.00	Negative	Negative

WATER SUPPLY OF GREER, S. C.

Commission of Public Works. Owned by city. Superintendent, B. B. Mills. In charge of collection of samples, B. B. Mills. Chairman of local Board of Health, Dr. W. T. Brockman.

Source: Two springs, about one mile from city. Capacity 230,000 gallons per day. Not filtered. Average consumption 125,000 gallons per day. Service metered. Sixty per cent of buildings using city water supply. Sewerage system: Fifty per cent of buildings connected with sewer and have water closets. Sewerage empties into septic tanks thence to branch. No garbage disposal plant. Garbage dumped into fields outside of city limits.

Sample Drawn	Color	Chlorine	Free Ammonia	Albuminoid Ammonia	Nitrogen as Nitrites	Nitrogen as Nitrates	Total Solids	Bacterial Indications of Contamination	Chemical Indications of Contamination
March 6, 1925	5.00	6.00	0.05	0.05	0.00	0.30	24.00	Negative	Negative
June 3, 1925	5.00	4.00	0.02	0.02	0.00	0.20	50.00	Negative	Negative
September 9, 1925	5.00	4.00	0.02	0.02	0.00	0.10	85.00	Negative	Negative
December 8, 1925	5.00	0.03	0.03	0.00	0.00	0.20	44.00	Negative	Negative

WATER SUPPLY OF HARTSVILLE, S. C.

Board of Commission of Public Works. Owned by city. Superintendent, J. M. Saverance. In charge of collection of samples, J. M. Saverance. Chairman of local Board of Health, D. R. Coker.

Source: Two wells, 12 inches in diameter and 180 feet deep, flowing 650 and 250 gallons per minute. Capacity 1,296,000 gallons per day. Average consumption 215,000 gallons per day. Consumption per capita 65 gallons per day. About 530 meters. Sewerage system: Seventy per cent of city sewered. Sewerage empties into Black Creek. No garbage disposal plant. Ten per cent new water and sewerage being installed.

March 6, 1925	5.00	5.00	0.02	0.03	0.000	0.00	31.00	Negative	Negative
May 29, 1925	5.00	4.00	0.05	0.04	0.002	0.00	31.00	Negative	Negative
September 8, 1925	10.00	4.00	0.05	0.04	0.000	0.00	60.00	Negative	Negative
December 16, 1925	5.00	4.00	0.02	0.04	0.000	0.00	80.00	Negative	Negative

WATER SUPPLY OF HONEA PATH, S. C.

Board of Public Works. Owned by city. Superintendent, J. O. Armstrong. In charge of collection of samples, J. O. Armstrong. Dr. H. B. Williams, chairman of local Board of Health.
Source: Five wells. Capacity 75,000 gallons per day. Not filtered. Capacity of plant 125,000 gallons per day. Eighty per cent of service metered. Sewerage system: Just installed. Garbage hauled to dump out of city.

March 19, 1925	5.00	46.00	0.02	0.01	0.00	0.20	147.00	Negative	Negative
June 4, 1925	5.00	52.00	0.03	0.02	0.00	0.30	95.00	Negative	Negative
September 4, 1925	5.00	4.00	0.01	0.01	0.00	0.20	99.00	Negative	Negative
December 14, 1925	5.00	25.00	0.02	0.04	0.00	0.20	82.00	Negative	Negative

WATER SUPPLY OF INMAN, S. C.

Inman Water Works. Owned by town. Superintendent, Mr. E. M. Anderson. In charge of collection of samples, E. M. Anderson. Chairman of local Board of Health, Dr. H. D. Dodd.
Source: Depp wells. Capacity 100,800 gallons per day. No treatment. Capacity of plant 100,000 gallons per day. Average consumption 25,000 gallons per day. Service 100 per cent metered. Sewerage system: Standard sanitary system. Sixty per cent of buildings have water closets and are connected with sewer. Two automatic septic tanks. Sewerage discharged into Head Waters of Lawson Falk. No garbage disposal plant, garbage dumped in gulleys outside of town.

June 16, 1925	5.00	6.00	0.02	0.01	0.00	0.00	110.00	Negative	Negative
September 4, 1925	5.00	4.00	0.03	0.01	0.00	0.00	123.00	Negative	Negative
December 4, 1925	5.00	5.00	0.03	0.02	0.00	0.00	67.00	Negative	Negative

WATER SUPPLY OF JOHNSTON, S. C.

Johnston Water Works. Owned by town. Superintendent of water supply, J. W. McCright. In charge of collection of samples, J. W. McCright. Chairman of local Board of Health, Dr. Jas. Halsford.
Source: Deep wells. Capacity 60,000 gallons per day of 20 hours. No treatment. Capacity of plant 60,000 gallons per day. Average consumption 30,000 gallons per day. Service 100 per cent metered. No sewerage system: Sewerage disposed of by septic tanks. No garbage disposal plant. Garbage hauled out of limits.

March 2, 1925	15.00	6.00	0.06	0.04	0.00	0.00	154.00	Negative	Negative
September 3, 1925	10.00	4.00	0.01	0.01	0.00	0.00	128.00	Negative	Negative
December 3, 1925	10.00	8.00	0.03	0.01	0.00	0.00	198.00	Negative	Negative

WATER SUPPLY OF KINGSTREE, S. C.

Kingstree Water Works Owned by city. Superintendent, S. C. Anderson. Chairman local Board of Health, A. M. Gordon.
Source: Three artesian wells on grounds with plant at center of city. Wells 3½ inches in diameter 350 feet deep, 8 inches in diameter 518 feet deep, and 6 inches in diameter 521 feet deep. Capacity 216,000 gallons per day. Not filtered. Average consumption 85,000 gallons per day. Service metered. Sixty five per cent of buildings using city water supply. Sewerage system: Have made extension of 13,000 feet of 4 inch main sewerage system. Eighty per cent of city sewered. Sixty five per cent of buildings connected with sewer and have water closets. Sewerage disposal plant. Sewage treated with kerosene and salt. Sewerage emptied into Black River. Extension of 13,000 feet to 8 inch main. No garbage disposal plant. Garbage dumped and burned outside of city.

Sample Drawn	Color	Chlorine	Free Ammonia	Albuminoid Ammonia	Nitrogen as Nitrates	Nitrogen as Nitrates	Total Solids	Bacterial Indications of Contamination	Chemical Indications of Contamination
April 7, 1925	5.00	9.00	0.09	0.02	0.010	0.00	239.00	Negative	Negative
June 16, 1925	5.00	7.00	0.07	0.02	0.003	0.00	281.00	Negative	Negative
September 22, 1925	5.00	7.00	0.05	0.01	0.002	0.00	249.00	Negative	Negative

WATER SUPPLY OF LANCASTER, S. C.

Commission of Public Works. Owned by city. Superintendent, R. S. Harper. In charge of collection of samples, R. N. Walkup. Chairman of local Board of Health, P. M. Lathan, and G. J. Derrick.
Source: Two Creeks, one and a half miles from city. Capacity 1,000,000 gallons per day. Treatment one grain alum per gallon. Water filtered by mechanical filter. Capacity of plant 720,000 gallons per day. Average consumption 300,000 gallons per day. Consumption per capita 20 gallons per day. Seventy five per cent of buildings using city water supply. Service metered. Sewerage system: Seventy per cent of city sewered and have water closets. Sewerage empties into Little River. No garbage disposal plant. Garbage dumped outside of city limits and treated with lime when necessary

March 10, 1925	5.00	13.00	0.01	0.02	0.00	0.00	169.00	Negative	Negative
May 29, 1925	5.00	14.00	0.02	0.02	0.00	0.00	116.00	Negative	Negative
September 4, 1925	5.00	6.00	0.01	0.03	0.00	0.00	95.00	Negative	Negative
December 4, 1925	10.00	9.00	0.04	0.03	0.00	0.00	123.00	Negative	Negative

WATER SUPPLY OF LATTA, S. C.

Latta Water and Sewerage Works. Owned by town. Superintendent, Rufus Miles. In charge of collection of samples, H. R. Humphries. Local Health Officer, Dr. C. C. Freed, Dillon, S. C.

Source: Deep well not filtered. No treatment. Capacity of plant 100,800 gallons per day. Average consumption 8,300 gallons per day. Service 100 per cent metered. Sewerage system: About 15 per cent of buildings have water closets and are connected with city sewer. Sewerage disposed of by septic tank thence into Buck Swamp Creek. No garbage disposal plant. Garbage hauled away and empties into woods more than a mile from town.

August 29, 1925	5.00	10.00	0.90	0.026	0.00	0.00	158.00	Negative	Negative

WATER SUPPLY OF LAURENS, S. C.

Municipal Light & Water Plant. Superintendent, F. W. Chapman. In charge of collection of samples, F. W. Chapman. Chairman of local Board of Health, Dr. W. D. Ferguson.

Source: Reedy Fork Branch. Filtered by rapid sand filters, and chlorinated. Treatment ¾ grain alum and one eighth grain lime. Covered clear well of 525,000 gallons capacity. Average consumption 225,000 gallons per day. Consumption per capita 45 gallons per day. Service metered. Ninety per cent of buildings using city water supply. Sewerage system: Town is about ninety per cent sewered. Seventy five per cent of buildings have water closets and are connected with sewer. Sewerage empties into Little River. No garbage disposal plant. Garbage dumped inside of city limits and treated with lime when necessary.

March 21, 1925	5.00	7.00	0.02	0.03	0.00	0.10	113.00	Negative	Negative
June 2, 1925	5.00	6.00	0.03	0.02	0.00	0.10	86.00	Negative	Negative
September 16, 1925	5.00	6.00	0.03	0.04	0.00	0.00	107.00	Negative	Negative
December 15, 1925	5.00	9.00	0.04	0.02	0.00	0.00	65.00	Negative	Negative

WATER SUPPLY OF LIBERTY, S. C.

Commission of Public Works. Owned by city. Superintendent, P. O. Wilson. In charge of collection of samples, P. O. Wilson. Chairman of local Board of Health, W. M. Long, M. D.

Source: Branch. Capacity of supply 100,000 gallons per day. Filtered. Filtered by slow sand filter, capacity of which is 25,000 gallons. Water treated with alum and chlorinated lime. Capacity of plant 50,000 gallons per day. Average consumption 40,000 gallons per day. Ninety five per cent of service metered. Sewerage system: City sewer. Garbage hauled away from town.

March 17, 1925	20.00	4.00	0.03	0.02	0.00	0.20	65.00	Negative	Negative
June 16, 1925	5.00	5.00	0.02	0.02	0.00	0.10	62.00	Negative	Negative
September 9, 1925	5.00	4.00	0.02	0.03	0.00	0.00	95.00	Negative	Negative
December 8, 1925	10.00	5.00	0.07	0.03	0.00	0.10	69.00	Negative	Negative

WATER SUPPLY OF MANNING, S. C.

Manning Water Works. Owned by city. Superintendent, F. P. Ervin. In charge of collection of samples, F. P. Ervin.
Source: Artesian well. Six inches in diameter 485 feet deep. Cased. Not filtered. Capacity of well natural flow of 37 gallons per minute. Capacity of well with compressor working 200 gallons per minute. Storage facilities concrete reservoir of 245,000 gallons capacity. Elevated tank capacity 100,000 gallons. Average consumption daily 75,000 gallons. Service metered. Eighty per cent of buildings using city water supply. Sewerage system: Seventy five per cent of city sewered. Thirty eight per cent of buildings have water closets and connected with sewer. Sewerage empties into Black River swamp. No garbage disposal plant.

Sample Drawn	Color	Chlorine	Free Ammonia	Albuminoid Ammonia	Nitrogen as Nitrates	Nitrogen as Nitrates	Total Solids	Bacterial Indications of Contamination	Chemical Indications of Contamination
June 1, 1925	5.00	8.00	0.03	0.02	0.00	0.10	185.00	Negative	Negative

WATER SUPPLY OF MARION, S. C.

Marion Water Company. Vice President and General Manager, P. A. Tillery, Raleigh, N. C. In charge of collection of samples, P. D. Ector. Div. Supt. Chairman of local Board of Health, Dr. N. N. Scofield.
Source: Wells. Diameter 8 and 6 inches, depths 100, and 169 feet. In city. Capacity 175,000 gallons per day. Not filtered. Capacity of plant 175,000 gallons per day. Average consumption 100,000 gallons per day. Consumption per capita 25 gallons per day. Service metered. One hundred per cent of buildings using city water. Sewerage system: Entire city sewered. Forth per cent of buildings connected with sewer and have water closets. Septic tank. Sewerage empties into Catfish Creek. Garbage dumped on dump grounds. Out side of city, then set on fire. No garbage disposal plant.

March 9, 1925	5.00	7.00	0.03	0.01	0.00	0.00	162.00	Negative	Negative
May 28, 1925	5.00	7.00	0.04	0.02	0.00	0.00	159.00	Negative	Negative
September 3, 1925	5.00	10.00	0.04	0.07	0.00	0.00	164.00	Negative	Negative
December 5, 1925	5.00	8.00	0.03	0.02	0.00	0.00	158.00	Negative	Negative

WATER SUPPLY OF McCOLL, S. C.

Water & Sewerage System. Owned by town of McColl. Superintendent, J. F. Snipes. In charge of collection of samples, J. F. Snipes. Chairman of local Board of Health, Dr. J. C. Moore.

Source: Deep wells, ten inches in diameter. Capacity 288,000 gallons per day. Service metered. Ninety five per cent of buildings using city water supply. Sewerage system: Seventy five per cent of city sewered. Sixty per cent of buildings are connected. Sewers empty through septic tanks into open streams that are never dry. No garbage disposal plant. Garbage dumped outside of city limits.

March 11, 1925	5.00	8.00	0.01	0.01	0.00	0.10	63.00	Negative	Negative
June 1, 1925	5.00	8.00	0.02	0.01	0.00	0.30	89.00	Negative	Negative
September 8, 1925	5.00	6.00	0.03	0.03	0.00	0.30	84.00	Negative	Negative
December 2, 1925	5.00	8.00	0.04	0.03	0.00	0.10	60.00	Negative	Negative

WATER SUPPLY OF MULLINS, S. C.

Board of Public Works. Owned by town of Mullins. Superintendent, G. M. Brown. In charge of collection of samples, G. M. Brown. Chairman of local Board of Health, Dr. J. H. Smith.

Source: Deep Well, 10 inches in diameter and 350 feet deep, in city. Capacity 125,000 gallons per day. Average consumption 75,000 gallons per day. Service metered. Ninety nine per cent of buildings using city water supply. Sewerage system: Fifty per cent septic tanks. Seventy five per cent of city sewered. Forty per cent of buildings are connected with sewer and have water closets. Sewerage empties into open stream, White Oak. No garbage disposal plant. Garbage dumped outside of city limits.

March 11, 1925	5.00	10.00	0.01	0.02	0.00	0.10	251.00	Negative	Negative
June 10, 1925	5.00	9.00	0.03	0.02	0.00	0.00	240.00	Negative	Negative
September 2, 1925	5.00	12.00	0.06	0.02	0.00	0.00	239.00	Negative	Negative
December 7, 1925	5.00	11.00	0.05	0.02	0.001	0.00	152.00	Negative	Negative

WATER SUPPLY OF NEWBERRY, S. C.

Commission of Public Works. Owned by city. Superintendent, H. W. Schumpert. In charge of collection of samples, Dr. R. L. Mayes. Chairman of local Board of Health, Dr. R. L. Mayes.

Source: Bush River. Discharged into one million gallon reservoir. From thence gravity conducts same into adjustable mixing chamber and coagulation basis, thence to two filters of 500,000 gallons capacity. Minimum supply of stream 7,000,000 per day. Average consumption about 500,000 gallons per day. Consumption per capita 50 gallons per day. Service metered. Ninety five per cent of buildings adjacent using city water supply. (Have wells for additional supply, though not being used at present.) Sewerage system: Seventy five per cent of buildings connectted with sewer. Now have connections in tenement houses in cotton mill district. Sewerage disposal plant. Septic tank and filter. Sewerage empties into Scott's Creek. Incinerator for disposal of garbage.

March 5, 1925	5.00	9.00	0.05	0.03	0.00	0.00	96.00	Negative	Negative
May 27, 1925	5.00	8.00	0.04	0.03	0.00	0.00	106.00	Negative	Negative
August 29, 1925	5.00	10.00	0.01	0.02	0.00	0.00	130.00	Negative	Negative
December 8, 1925	5.00	10.00	0.04	0.04	0.00	0.00	149.00	Negative	Negative

WATER SUPPLY OF NORTH AUGUSTA, S. C.

North Augusta Water Works. Owned by town. W. E. Mealing, Chairman of Public Service Commission. In charge of collection of samples, W. E. Mealing. Chairman of local Board of Health, W. E. Mealing.

Source: Springs forming lake in city. Not filtered. Chlorinating plant has been installed. Treatment 1.5 pounds of hypochlorite of lime to 1,500,000 gallons. Capacity of plant 330,000 gallons per day. Capacity of supply 400,000 gallons per day. Average consumption 250,000 gallons per day. Service metered. Sewerage system: Eighty per cent of city sewered. Sewerage empties into Savannah River. No garbage disposal plant. Garbage dumped outside of town and burned.

Sample Drawn	Color	Chlorine	Free Ammonia	Albuminoid Ammonia	Nitrogen as Nitrites	Nitrogen as Nitrates	Total Solids	Bacterial Indications of Contamination	Chemical Indications of Contamination
March 14, 1925	5.00	7.00	0.02	0.04	0.001	0.20	29.00	Negative	Negative
June 5, 1925	5.00	7.00	0.03	0.02	0.000	0.30	78.00	Negative	Negative
September 3, 1925	5.00	10.00	0.50	0.03	0.05	0.30	57.00	Negative	Negative
December 7, 1925	10.00	8.00	0.04	0.03	0.002	0.10	25.00	Negative	Negative

WATER SUPPLY OF ORANGEBURG, S. C.

Orangeburg Water and Light Plant. Owned by city. Superintendent, J. F. Pearson. Chairman of local Board of Health, V. W. Brabham.

Source: Three wells, 8 inches in diameter and 200 feet deep, and one 10 inches in diameter and 250 feet deep. Pumped and flowing, in city. Capacity 800,000 gallons per day. Not filtered. Capacity of plant 1,000,000 gallons per day. Average consumption 400,000 gallons per day. Consumption per capita 48 gallons per day. Service metered 100 per cent. Sewerage system: Sixty five per cent of buildings connected with sewer and have water closets. Sewerage empties into Edisto River. Garbage dumped at incinerator and burned.

March 10, 1925	20.00	8.00	0.02	0.01	0.00	0.00	210.00	Negative	Negative
June 3, 1925	5.00	7.00	0.02	0.02	0.00	0.00	183.00	Negative	Negative
September 1, 1925	5.00	7.00	0.01	0.02	0.00	0.00	236.00	Negative	Negative
December 10, 1925	5.00	9.00	0.04	0.03	0.00	0.00	200.00	Negative	Negative

WATER SUPPLY OF PICKENS, S. C.

Commission of Public Works. Owned by city. Superintendent, C. L. Hester. In charge of Collection of Samples, C. L. Hester. Chairman of local Board of Health, J. L. Valley.

Source: Town Creek, ten feet wide and eighteen inches deep. Filtered. Filters of 80,000 gallon capacity, sand and rock. Treatment lime and alum in setting basin, filtered and chlorinated. Capacity of plant 75,000 gallons per day. Average consumption 15,000 gallons per day. Service metered one hundred per cent. Sewerage system: Gravity with flush tanks and septic tanks. Sixty per cent of buildings are connected with city sewer and have water closets. Sewerage disposed of by septic tanks and into Town Creek. No garbage disposal plant. Garbage hauled into country.

March 12, 1925	5.00	6.00	0.02	0.01	0.00	0.10	78.00	Negative	Negative
June 1, 1925	5.00	5.00	0.03	0.02	0.00	0.10	100.00	Negative	Negative
September 1, 1925	5.00	7.00	0.01	0.01	0.00	0.10	75.00	Negative	Negative
December 14, 1925	10.00	6.00	0.04	0.04	0.00	0.10	65.00	Negative	Negative

WATER SUPPLY OF ROCK HILL, S. C.

Water & Light Department. Owned by city. Manager, W. P. Goodman. In charge of collection of samples, S. T. Frew. Chairman of local Board of Health, Dr. J. B. Miller.

Source: Catawba River, 6 miles from city. Filtered by mechanical filter. Treatment ⅜ grain of alum per gallon, ½ grain of lime per gallon, 0.05 grain of hypochlorite of lime per gallon. Capacity of plant 1,000,000 gallons per day. Average consumption 800,000 gallons per day. Consumption per capita 50 gallons per day. Service metered. Seventy per cent of buildings using water supply. Sewerage system: Forty per cent of buildings connected with sewer and have water closets. Sewerage empties into small streams after Imhoff treatment, thence into Catawba River. Sewerage disposal plant. Garbage dumped on city farm.

March 17, 1925	5.00	6.00	0.02	0.03	0.00	0.10	109.00	Negative	Negative
May 28, 1925	5.00	5.00	0.03	0.03	0.00	0.10	96.00	Negative	Negative
September 23, 1925	5.00	6.00	0.01	0.03	0.00	0.10	59.00	Negative	Negative
December 10, 1925	5.00	5.00	0.02	0.03	0.00	0.00	150.00	Negative	Negative

WATER SUPPLY OF ST. MATTHEWS, S. C.

Commission of Public Works. Owned by town of St. Matthews. Superintendent, W. Q. Beard. In charge of collection of samples, W. Q. Beard. Chairman of local Board of Health, Dr. T. H. Dreher.

Source: Well. Capacity 360,000 gallons per day. Not filtered. No treatment. Capacity of plant 648,000 gallons per day. Average consumption 75,000 gallons per day. Service 100 per cent metered. Sewerage system: Septic tanks. Open clostes cleaned and hauled off. Fifty per cent of buildings have septic tanks. No garbage disposal, plant or incinerator. Garbage hauled off.

March 9, 1925	5.00	7.00	0.02	0.01	0.00	0.10	85.00	Negative	Negative
June 3, 1925	5.00	8.00	0.03	0.02	0.00	0.00	156.00	Negative	Negative
September 1, 1925	5.00	9.00	0.02	0.02	0.00	0.10	117.00	Negative	Negative
December 16, 1925	5.00	7.00	0.03	0.02	0.00	0.10	140.00	Negative	Negative

WATER SUPPLY OF SENECA, S. C.

Commission of Public Works. Owned by town. Superintendent, F. M. Hunt. In charge of collection of samples, F. M. Hunt. Chairman of local Board of Health, Dr. W. C. Marrett.

Source: Thompson Creek. Capacity 1,440,000 gallons per day. Filtered. Sand and rock filters, of 1,008,000 gallons per day capacity. Treated with lime, alum and chlorine. Capacity of plant 720,000 gallons per day of 12 hours. Average consumption 75,000 gallons per day. Service 100 per cent metered. Sewerage system: Gravity sewerage system. Seventy five per cent of buildings have water closets and are connected with city sewer. Sewerage empties into creek. No garbage disposal plant or incinerator. Garbage hauled away.

Sample Drawn	Color	Chlorine	Free Ammonia	Albuminoid Ammonia	Nitrogen as Nitrates	Nitrogen as Nitrates	Total Solids	Bacterial Indications of Contamination	Chemical Indications of Contamination
March 6, 1925	5.00	6.00	0.07	0.07	0.00	0.10	58.00	Negative	Negative
May 27, 1925	5.00	6.00	0.05	0.02	0.00	0.10	71.00	Negative	Negative
September 1, 1925	5.00	6.00	0.01	0.02	0.00	0.00	183.00	Negative	Negative
December 5, 1925	5.00	5.00	0.01	0.02	0.00	0.00	109.00	Negative	Negative

WATER SUPPLY OF SPARTANBURG, S. C.

Spartanburg Water Works. Owned by city. Operated by specially chartered Board of Water Commissioners. Superintendent, R. B. Simms. Chairman of local Board of Health, Dr. H. R. Black.

Source: Chinquepin Creek that flows into reservoir. Shoaley and Lawson's Fork Creeks, two miles from city limits. Capacity 8,000,000 gallons per day. City consumption 2,800,000 gallons per day. Treatment, one half to four grains alum owing to turbidity, with six to eight hours coagulant run, thence through mechanical filter to clear well and treated with chlorine. Consumption per capita 100 gallons per day. Service metered. Ninety two per cent of buildings using city water supply. Sewerage system: Ninety two per cent of buildings connected with sewer and have water closets. Sewerage empties into Lawson's Fork Creek and Fair Forest Creek, one eighth mile from city limits. Garbage disposal plant and garbage burned, some garbage dumped on outskirts of city.

March 9, 1925	25.00	5.00	0.03	0.02	0.00	0.00	72.00	Negative	Negative
May 29, 1925	5.00	4.00	0.02	0.03	0.00	0.10	90.00	Negative	Negative
August 31, 1925	5.00	5.00	0.02	0.046	0.00	0.00	80.00	Negative	Negative
December 3, 1925	5.00	5.00	0.03	0.03	0.00	0.10	41.00	Negative	Negative

WATER SUPPLY OF SUMTER, S. C.

City Water Works. Owned by city. Superintendent, F. K. Ellis. In charge of collection of samples, F. K. Ellis.
Source: Fourteen wells, 6 inches in diameter, 70 to 430 feet deep, pumped. Pumps in pit 9 feet from surface. One mile from center of city. Capacity steam 1,800,000, electric 1,440,000 gallons per day. Not filtered. Service 100 per cent metered. Seventy five per cent of buildings connected with water supply. Sewerage system: Seventy five per cent of buildings connected with sewer and have water closets. Sewerage empties into Turkey Creek on eastern side of city and into Green Creek on western side of city, after passing through septic tanks. No garbage disposal plant. Garbage hauled and dumped on the outside of city limits.

March 21, 1925	5.00	12.00	0.02	0.02	0.00	0.20	37.00	Negative	Negative
June 27, 1925	5.00	10.00	0.03	0.04	0.00	0.30	60.00	Negative	Negative
September 12, 1925	5.00	15.00	0.03	0.01	0.00	0.40	89.00	Negative	Negative
December 7, 1925	5.00	14.00	0.01	0.04	0.00	0.30	48.00	Negative	Negative

WATER SUPPLY OF TIMMONSVILLE, S. C.

Board of Public Works. Superintendent, E. J. Lynch. In charge of collection of samples, E. J. Lynch.
Source: Three wells, 8 inches in diameter and 170 feet deep on outer edge of town. Capacity 576,000 gallons per day. Average consumption 65,000 gallons per day. Consumption per capita 30 gallons per day. Service metered. Eighty per cent of buildings using water supply. Sewerage system: Sixty per cent of buildings connected with sewer and have water closets. Septic tank. Sewerage empties into Sparrow Swamp. No garbage disposal plant. Garbage dumped into swamp, some also burned.

March 9, 1925	10.00	6.00	0.04	0.02	0.00	0.00	90.00	Negative	Negative
May 29, 1925	35.00	5.00	0.07	0.03	0.00	0.00	96.00	Negative	Negative
September 3, 1925	30.00	8.00	0.03	0.01	0.00	0.00	95.00	Negative	Negative
December 3, 1925	25.00	8.00	0.03	0.02	0.00	0.00	98.00	Negative	Negative

WATER SUPPLY OF UNION, S. C.

Municipal Electric Light & Water Plant. Superintendent, W. B. Aiken. In charge of collection of samples, W. B. Aiken. Chairman of local Board of Health, J. T. Parham.
Source: Creek, two miles from city. Capacity 12,000,000 gallons per day. Filtered by mechanical filter. Treatment alum and chlorine. Capacity of plant 2,000,000 gallons per day. Average consumption 1,000,000 gallons per day Consumption per capita 93 gallons per day. Service metered. One hundred per cent of buildings using city water supply. Sewerage system: Seventy five per cent of city sewered and have water closets. Sewerage empties into Buffalo Creek. No garbage disposal plant. Garbage dumped outside of city limits.

March 11, 1925	5.00	6.00	0.02	0.01	0.00	0.00	139.00	Negative	Negative
May 28, 1925	5.00	5.00	0.02	0.02	0.00	0.00	117.00	Negative	Negative
September 2, 1925	5.00	9.00	0.03	0.02	0.00	0.00	76.00	Negative	Negative
December 9, 1925	5.00	8.00	0.04	0.02	0.00	0.00	52.00	Negative	Negative

WATER SUPPLY OF WALHALLA, S. C.

Board of Public Works. Owned by town of Walhalla. Superintendent, J. F. Bearden. In charge of collection of samples, Geo. M. Ansel. Chairman of local Board of Health, Dr. J. W. Bell.

Source: Branch and Springs. Capacity 504,000 gallons per day. Filtered through sand and rock filter. No treatment. Capacity of plant 504,000 gallons per day. Average consumption 147,884 gallons per day. Service 100 per cent metered. Sewerage system: Nature of sewerage system—Gravity, automatic flush tanks empty in Creek. Twenty five per cent of buildings connected with sewer and have water closets. Sewerage empties into Cain Creek and Bear Swamp Creek. No garbage disposal plant or incinerattor. Garbage hauled off to two or three miles.

Sample Drawn	Color	Chlorine	Free Ammonia	Albuminoid Ammonia	Nitrogen as Nitrites	Nitrogen as Nitrites	Total Solids	Bacterial Indications of Contamination	Chemical Indications of Contamination
March 17, 1925	5.00	5.00	0.03	0.08	0.00	0.00	76.00	Negative	Negative
May 29, 1925	5.00	4.00	0.02	0.01	0.00	0.00	55.00	Negative	Negative
September 2, 1925	5.00	4.00	0.50	0.02	0.00	0.00	45.00	Negative	Negative
December 3, 1925	10.00	5.00	0.02	0.03	0.00	0.00	35.00	Negative	Negative

WATER SUPPLY OF WESTMINSTER, S. C.

Westminster Water Works. Owned by city. Superintendent, J. King Dillard. In charge of collecttion of samples, J. King Dillard. Chairman of local Board of Health, Dr. F. T. Simpson.

Source: Ramsey Creek. Capacity 720,000 gallons per day. Filtered by sand and gravel filter of 30,000 gallons per hour capacity. Treated with Soda Ash, Alum and Chlorine. Capacity of plant 720,000 gallons per day. Average consumption 75,000 gallons per day. Service 100 per cent metered. Sewerage system: Three septic tanks, 2 trunk lines to each tank for town proper. One septic tank for mill village with one trunk line. Approximately 200 connections to sewer. Sewerage empties into a tributary of Tugaloo River.

July 24, 1925	5.00	6.00	0.01	0.02	0.00	0.00	71.00	Negative	Negative
October 1, 1925	35.00	4.00	0.01	0.02	0.00	0.00	75.00	Negative	Negative
December 17, 1925	15.00	4.00	0.05	0.04	0.00	0.20	48.00	Negative	Negative

WATER SUPPLY OF WILLISTON, S. C.

Williston Water Company. Superintendent, P. W. Odiorne. In charge of collection of samples, J. W. Odiorne. Chairman local Board of Health, J. L. Smith, M. D.

Source: Two wells, electric driven pumps. Capacity 60,000 gallons per day. No treatment. Capacity of plant, 50,000 gallons per day. Average consumption, 20,000 gallons per day. Service 100 per cent metered. No sewerage system. Sewerage disposed of by a few tanks. No sewage disposal plant. No garbage disposal plant, garbage hauled off.

April 9, 1925	5.00	7.00	0.03	0.02	0.00	0.20	165.00	Negative	Negative
July 22, 1925	5.00	6.00	0.04	0.02	0.00	0.10	125.00	Negative	Negative
September 15, 1925	5.00	9.00	0.04	0.03	0.00	0.20	102.00	Negative	Negative
December 9, 1925	5.00	8.00	0.03	0.02	0.001	0.10	132.00	Negative	Negative

WATER SUPPLY OF WINNSBORO, S. C.

Board of Public Works. Owned by town. Superintendent, T. R. Ellison. In charge of collection of samples, T. R. Ellison. Chairman of local Board of Health, Dr. J. E. Douglas.

Source: Creek, two miles from city. Filtered. Capacity, 1,000,000 gallons. Treated with alum. Average consumption, 75,000 gallons per day. Consumption per capita, 40 gallons per day. Service metered. Eighty percent of buildings using city water supply.

Sewerage System: Eighty five per cent of city sewered. Seventy five per cent of buildings connected with sewer. Sewerage empties into Cathcart's Branch, 3-4 mile from city. Septic Tank. No garbage disposal plant. Garbage dumped in low waste places.

March 11, 1925	5.00	8.00	0.04	0.02	0.00	0.10	121.00	Negative	Negative
June 11, 1925	5.00	8.00	0.04	0.04	0.00	0.10	115.00	Negative	Negative
October 8, 1925	5.00	9.00	0.02	0.02	0.00	0.00	130.00	Negative	Negative
December 14, 1925	5.00	8.00	0.04	0.03	0.00	0.10	85.00	Negative	Negative

WATER SUPPLY OF WOODRUFF, S. C.

Board of Public Works. Owned to town. Superintendent, V. L. Woodruff. In charge of collection of samples, V. L. Woodruff. T. W. Cox Chairman of Board. Dr. Woodruff, chairman of local Board of Health.

Source: Two wells, one-half mile from city. Depth 400 and 141 feet. Capacity, about 185,000 gallons per day. Service metered. Forty per cent of buildings using city water supply. 180 connections.

Sewerage System: Seventy five per cent of city sewered. Forty per cent of buildings connected with sewer and have water closets. 150 sewerage connections. Two septic tanks. Sewerage empties into branch and creek. No garbage disposal plant. Garbage dumped in tank.

March 16, 1925	5.00	5.00	0.02	0.02	0.00	0.10	240.00	Negative	Negative
June 4, 1925	5.00	8.00	0.03	0.02	0.00	0.10	203.00	Negative	Negative
September 5, 1925	5.00	5.00	0.05	0.02	0.00	0.00	258.00	Negative	Negative
December 7, 1925	5.00	7.00	0.02	0.02	0.00	0.10	127.00	Negative	Negative

WATER SUPPLY OF YORK, S. C.

York Water Plant. Owned by city. Superintendent, J. O. Wray. In charge of collection of samples, J. O. Wray. Chairman of local Board of Health, Dr. Whiteside.

Source: Branch, 3-4 mile from city. Capacity, 800,000 gallons per day. Capacity of plant, 500,000 gallons per day. Average consumption, 250,000 gallons per day. Consumption per capita, 35 gallons per day. Treated with alum. Filtered. Service metered. Seventy-five per cent of buildings connected with city water supply.

Sewerage System: Fifty per cent of buildings connected with sewer and have water closets. Sewerage empties into Fishing Creek on east and Turkey Creek on west. No garbage disposal plant. Garbage dumped on wornout land outside of city limits.

Sample Drawn	Color	Chlorine	Free Ammonia	Albuminoid Ammonia	Nitrogen as Nitrites	Nitrogen as Nitrites	Total Solids	Bacterial Indications of Contamination	Chemical Indications of Contamination
March 7, 1925	5.00	7.00	0.02	0.02	0.00	0.00	52.00	Negative	Negative
June 1, 1925	5.00	9.00	0.03	0.02	0.00	0.10	127.00	Negative	Negative
December 16, 1925	5.00	8.00	0.02	0.04	0.001	0.00	97.00	Negative	Negative

FINANCIAL STATEMENT

The following is a correct statement of the expenditures of the State Board of Health for the fiscal year of 1925. All claims against the Board are itemized and rendered in duplicate, the original being attached to warrant of Comptroller General and forwarded to his office for payment—the duplicate being filed in this office.

SUPERVISION AND CONTROL OF HEALTH

Appropriation		$ 2,000.00
A. Personal Service.		
A-3 Special Payments.		
Executive Committee at $10.00 per diem	$ 770.00	
B. Contractual Services.		
B-2 Travel	764.97	
C. Supplies.		
C-4 Office Supplies	48.00	
D. Fixed Charges & Contributions.		
D-9 Contributions (Association Dues)	38.00	
		1,620.97
Balance		$ 379.03

SUPERINTENDENCE AND ACCOUNTS

Appropriation		$15,884.30
A. Personal Service.		
A-1 Salaries	$10,500.00	
A-2 Wages	400.00	
B. Contractual Services.		
B-2 Travel	1,980.86	
B-3 Telephone & Telegraph	443.47	
B-4 Repairs	5.00	
B-5 Printing & Advertising	200.00	
C. Supplies.		
C-4 Office Supplies	597.88	
D. Fixed Charges and Contributions.		
D-2 Rents	1,578.58	
D-4 Insurance	15.30	
D-9 Contributions (Association Dues)	60.00	
G. Equipment.		
G-1 Office Equipment	50.00	
		15,831.09
Balance		$ 53.21

CONTROL OF EPIDEMIC DISEASES

Appropriation		$38,400.00
A. Personal Service.		
A-1 Salaries	$ 3,500.00	
A-3 Special Payments.		
Professional Services	15.00	
B. Contractual Services.		
B-2 Travel	1,594.77	
C. Supplies.		
C-6 Medical & Surgical Supplies	33,000.00	
Total		38,209.77
Balance		$ 190.23

HYGIENIC LABORATORY

Appropriation		$11,830.00
A. Personal Service.		
A-1 Salaries	$ 8,900.00	
A-2 Wages	400.00	
Contractual Services.		
B-1 Freight, Express & Delivery	40.16	
B-3 Telephone & Telegraph	87.65	
B-4 Repairs	49.97	
B-6 Water, Heat, Light & Power	163.84	
C. Supplies.		
C-3 Feed & Veterinary Supplies	50.00	
C-4 Office Supplies	1,029.99	
C-5 Laundry & Disinfectants	10.00	
C-6 Medical & Surgical	447.40	
C-7 Refrigerating Supplies	120.00	
C-12 Other Supplies	299.11	
D. Fixed Charges & Contributions.		
D-9 Contributions (Association Dues)	58.50	
G. Equipment.		
G-1 Office Equipment	99.92	
G-6 Live Stock	10.00	
Total Expenditures		$11,766.54
Balance		$ 63.46

BUREAU OF VITAL STATISTICS

Appropriation		$ 7,625.00
A. Personal Service.		
A-1 Salaries	6,120.00	
B. Contractual Services.		
B-2 Travel	59.90	
B-3 Telephone & Telegraph	79.20	
B-4 Repairs	15.00	
B-7 Other Contractual Services (Binding Vols. Births & Deaths)	120.55	
C. Supplies.		
C-4 Office Supplies	938.19	
G. Equipment.		
G-1 Office Equipment	250.00	
Total Expenditures		7,582.84
Balance		$ 42.16

RURAL SANITATION & COUNTY HEALTH WORK

Appropriation		$26,322.94
A. Personal Service.		
A-1 Salaries	$20,815.00	
B. Contractual Services.		
B-2 Travel	4,250.00	
B-3 Telephone & Telegraph	67.50	
B-4 Repairs	406.63	
C. Supplies.		
C-4 Office Supplies	387.94	
D. Fixed Charges & Contributions.		
D-2 Rents	162.00	
Total Expenditures		26,089.07
Balance		$ 233.87

HOTEL INSPECTION FUND

Appropriation		$ 5,240.00
A. Personal Service.		
A-1 Salaries	3,240.00	

B. Contractual Services.		
B-2 Travel	1,287.04	
C. Supplies.		
C-4 Office Supplies	20.50	
D. Fixed Charges & Contributions.		
D-4 Insurance	32.83	
G. Equipment.		
G-4 Motor Vehicle Equipment	600.00	
Total Expenditures		5,180.37
Balance		$ 59.63

MALARIA CONTROL WORK

Appropriation		$16,245.00
A. Personal Service.		
A-1 Salaries	$ 9,111.64	
A-2 Wages	1,815.48	
B. Contractual Services.		
B-2 Travel	3,579.08	
B-3 Telephone & Telegraph	144.94	
C. Supplies.		
C-4 Office Supplies	550.00	
C-8 Educational Supplies	34.20	
D. Fixed Charges & Contributions.		
D-2 Rents	432.00	
Total Expenditures		15,667.34
Balance		$ 577.66

AID FOR CRIPPLED CHILDREN

Appropriation		$10,000.00
A. Personal Service.		
A-1 Salary Nurse (9 Months)	$ 1,275.00	
B. Contractual Services.		
B-2 Travel	1,179.34	
B-7 Other Contractual Services	7,220.20	
C. Supplies.		
C-4 Office Supplies	187.48	
Total Expenditures		9,862.02
Balance		$ 137.98

BUREAU OF CHILD HYGIENE

Appropriation		$16,492.00
A. Personal Service.		
A-1 Salaries	$11,400.00	
B. Contractual Services.		
B-2 Travel	3,000.00	
B-3 Telephone & Telegraph	172.71	
B-4 Repairs	15.00	
B-5 Printing & Advertising	191.50	
C. Supplies.		
C-4 Office Supplies	408.40	
C-8 Educational Supplies	400.00	
D. Fixed Charges & Contributions.		
D-2 Rents	814.64	
G. Equipment.		
G-1 Office Equipment	76.00	
Total Expenditures		16,478.25
Balance		13.75

SOUTH CAROLINA SANATORIUM

Appropriation		$93,600.00
A. Personal Service.		
A-1 Salaries	$18,611.40	
A-2 Wages	3,439.34	
A-3 Special Payments—Fees	606.00	
B. Contractual Services.		
B-2 Travel	624.09	
B-3 Telephone & Telegraph	359.36	
B-4 Repairs	2,299.46	
B-6 Water, Heat, Light & Power	30.72	
B-7 Other Contractual Services	1,430.28	
C. Supplies.		
C-1 Food Supplies	15,110.94	
C-2 Fuel Supplies	1,485.63	
C-3 Feed & Veterinary Supplies	7,007.53	
C-4. Office Supplies	83.28	
C-5 Laundry & Disinfectant Supplies	11.03	
C-6 Medical & Surgical Supplies	498.68	
C-7 Refrigerating Supplies	1,332.65	
C-9 Motor Vehicle Supplies	976.16	
C-10 Agricultural & Botanical Supplies	287.12	
C-11 Dry Goods & Clothing Supplies	139.70	
C-12 Other Supplies	3,264.73	
D. Fixed Charges & Contributions.		
D-4 Insurance	2,866.53	
F. Materials.		
F-3 Building Material	500.00	
G. Equipment.		
G-1 Office Equipment	93.13	
G-2 Medical Equipment	54.10	
G-3 Household Equipment	1,368.15	
G-4 Motor Vehicles & Equipment	477.50	
G-6 Live Stock	55.00	
H. Lands & Structures.		
Children's Ward	25,000.00	
Refrigerating Plant & Silo	4,952.50	
Total Expenditures		92,965.01
Balance		$ 634.99
Total Appropriation		$243,639.24
Total Expenditures		241,253.27
Balance		$ 2,385.97